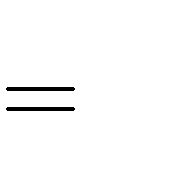
# CHUYÊN ĐỀ: PHÉP CHIA ĐA THỨC MỘT BIẾN PHẦN I. TÓM TẮT LÍ THUYẾT.

**A. Kiến thức cơ bản:**

# Phép chia đa thức

Cho hai đa thức *A* và *B* với hết



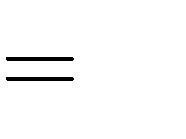
*A Q B*

*B*  0 . Nếu có một đa thức *Q* sao cho

*A*  *B*.*Q*

thì ta có phép chia

*A* : *B*



*Q*

hay

trong đó:

*A* là đa thức bị chia

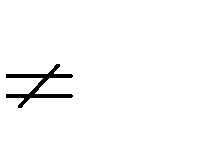
*B* là đa thức chia

*Q* là đa thức thương (gọi tắt là thương)

Ta còn nói đa thức *A* chia hết cho đa thức *B* .

# Chia đơn thức cho đơn thức

Muốn chia đơn thức *A* cho đơn thức *B B* khi số mũ của biến trong *A* lớn hơn hoặc bằng



0

số mũ của biến đó trong *B* , ta làm như sau:

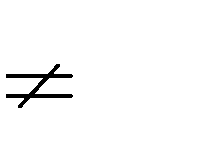
+ Chia hệ số của *A* cho hệ số của *B* ;

+ Chia lũy thừa của từng biến trong *A* cho lũy thừa của cùng biến đó trong *B* ;

+ Nhân các kết quả với nhau.

# Chia đa thức cho đơn thức

Muốn chia đơn thức *P* cho đơn thức *Q Q* khi số mũ của biến trong *P* lớn hơn hoặc bằng



0

số mũ của biến đó trong *Q* , ta chia mỗi đơn thức của đa thức *P* cho đơn thức *Q* rồi cộng các thương với nhau.

# Chia đa thức cho đa thức

**\* Trường hợp chia hết:**

Để chia một đa thức cho một đa thức khác đa thức không (cả hai đa thức đều đã thu gọn và sắp xếp các đơn thức theo lũy thừa giảm dần của biến) khi bậc của đa thức bị chia lớn hơn hoặc bằng bậc của đa thức chia, ta làm như sau:

Bước 1:

+ Chia đơn thức bậc cao nhất của đa thức bị chia cho đơn thức bậc cao nhất của đa thức chia

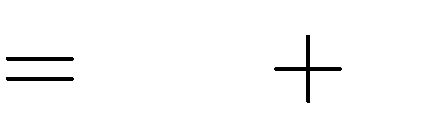
+ Nhân kết quả trên với đa thức chia và đặt tích dưới đa thức bị chia sao cho hai đơn thức có cùng số mũ của cùng một biến ở cùng một cột.

+ Lấy đa thức bị chia trừ đi tích đặt dưới để được đa thức mới. Bước 2:

+ Tiếp tục quá trình trên cho đến khi nhận được đa thức không hoặc đa thức có bậc nhỏ hơn bậc của đa thức chia.

# Trường hợp chia có dư:

Khi chia đa thức *A* cho đa thức *B*

+ Đa thức dư *R* phải bằng 0 hoặc có bậc nhỏ hơn bậc của *B* .

+ Nếu thương là đa thức *Q* và dư *R* ta có đẳng thức

# PHẦN II. CÁC DẠNG BÀI.

**Dạng 1. Thực hiện tính**

# Phương pháp giải:

* **Sử dụng quy tắc chia đơn thức cho đơn thức**

+ Chia hệ số của *A* cho hệ số của *B* ;

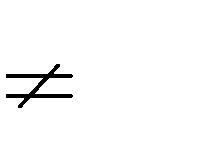
1. *B*.*Q R* .

+ Chia lũy thừa của từng biến trong *A* cho lũy thừa của cùng biến đó trong *B* ;

+ Nhân các kết quả với nhau.

# Sử dụng quy tắc chia đa thức cho đơn thức

Muốn chia đơn thức *P* cho đơn thức *Q Q* khi số mũ của biến trong *P* lớn hơn hoặc bằng



0

số mũ của biến đó trong *Q* , ta chia mỗi đơn thức của đa thức *P* cho đơn thức *Q* rồi cộng các thương với nhau.

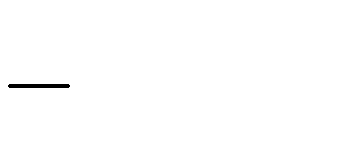
# Sử dụng quy tắc chia đa thức cho đa thức

1. **Bài toán.**

**Bài 1.** Tính

a) 3*x*7

b)

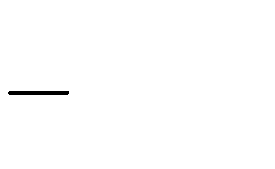


2*x* : *x*

: 1 *x*4

2

c) 0, 25*x*5 :

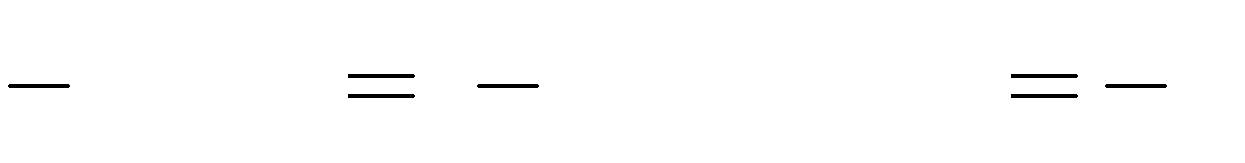


5*x*2

# Lời giải:

a) 3*x*7

b)



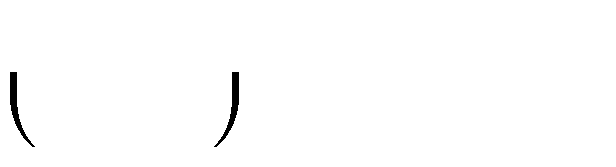
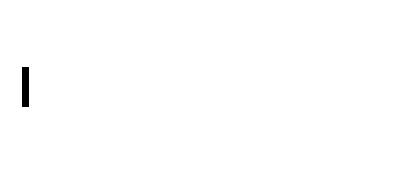
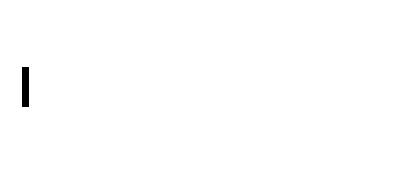
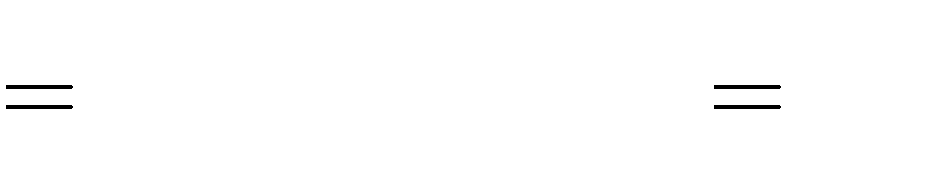
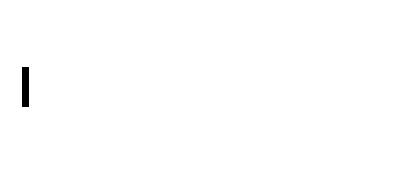
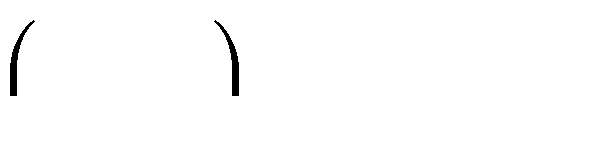
2*x* : *x*

2 :1 . *x* : *x*

2

: 1 *x*4

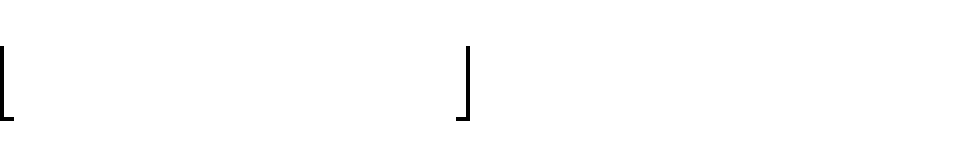
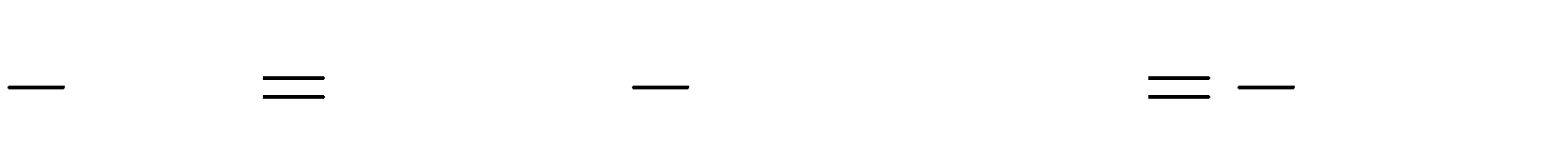
2



3 : 1 . *x*7 : *x*4 6*x*3

2

c) 0, 25*x*5 :

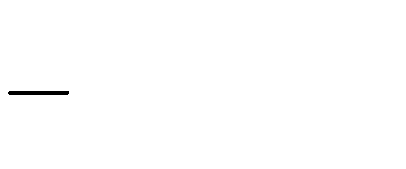


5*x*2

0, 25 : 5 . *x*5 : *x*2

0, 05*x*3

**Bài 2.** Tính a) 12*x*3 : 4*x* b)

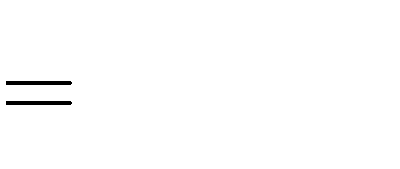


2*x*4 : *x*4

c) 2*x*5 : 5*x*2

# Lời giải:

a) 12*x*3 : 4*x*

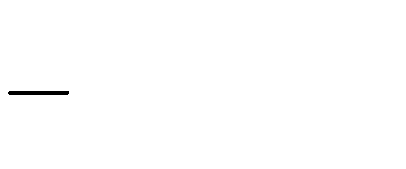


12 : 4 .

*x*3 : *x*

=3*x*2

b)



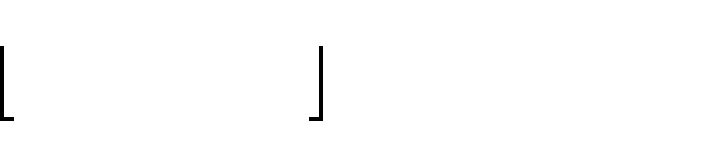
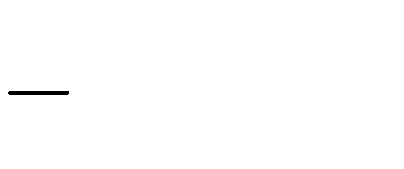
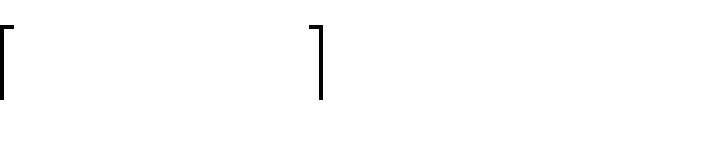
2*x*4 : *x*4

c) 2*x*

5 : 5*x*2

=

= 2 : 5 .

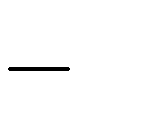


2 :1 . *x*4 : *x*4

*x*5 : *x*2

=

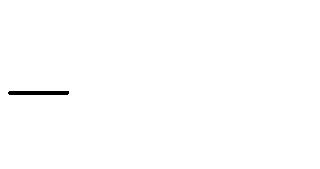
= 2 *x*3



2

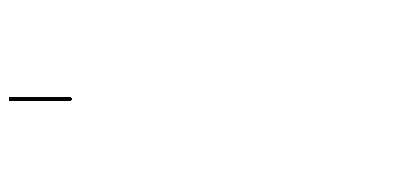
5

**Bài 3.** Tính a) 120*x*7:



24*x*5

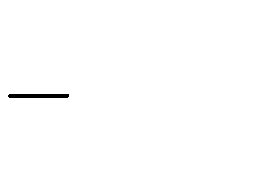
b) 3 4



*x* 3 : 1 *x*

8

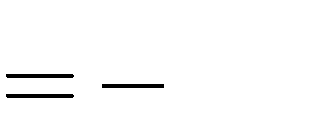
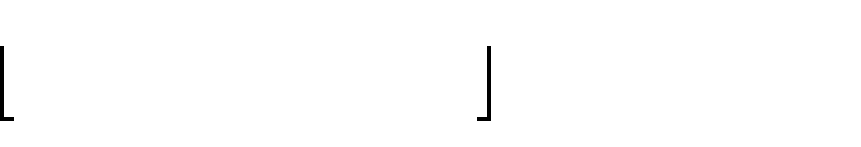
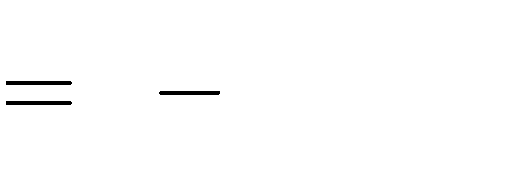
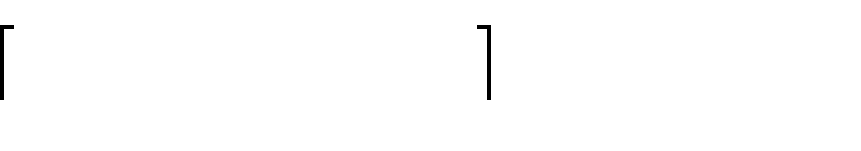
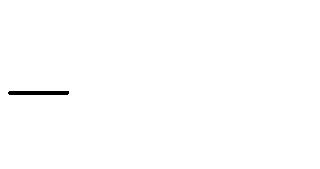
c) -3,72*x*5 :



4*x* 2

# Lời giải:

a) 120*x*7:

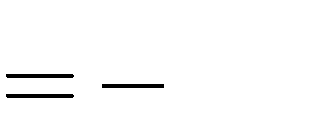
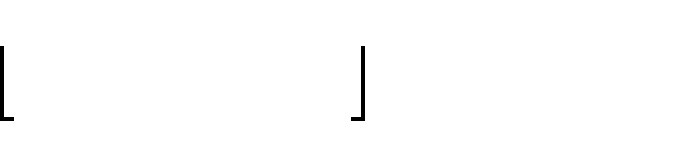
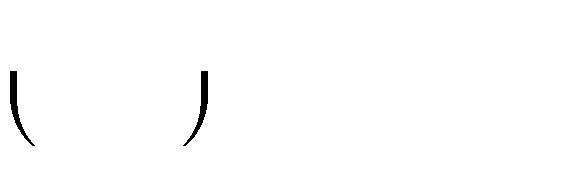
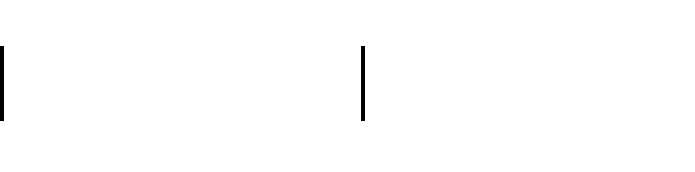
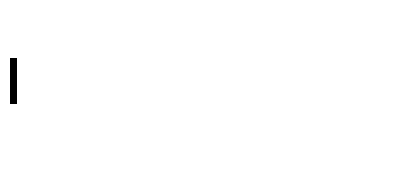
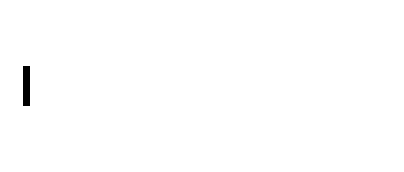
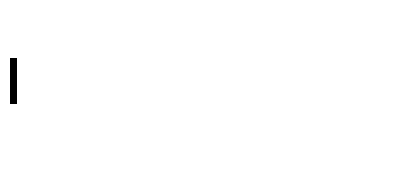
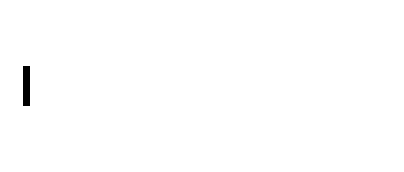
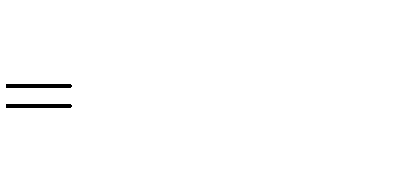
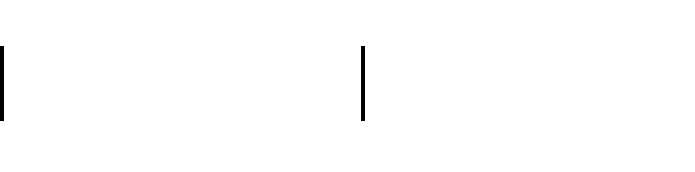
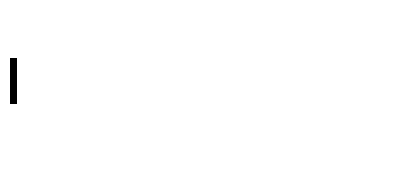
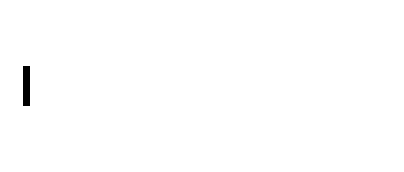
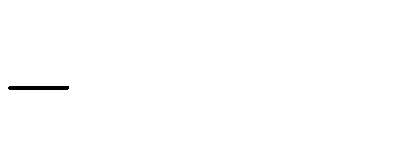
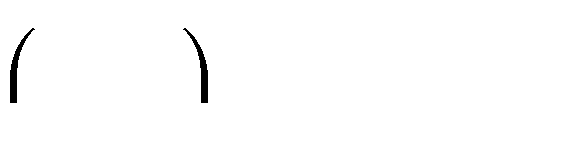
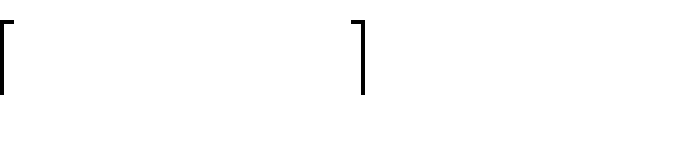
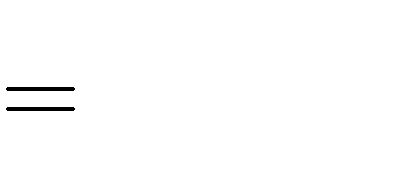
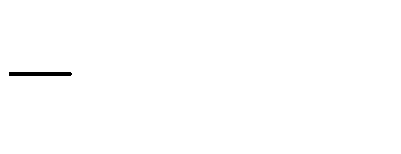
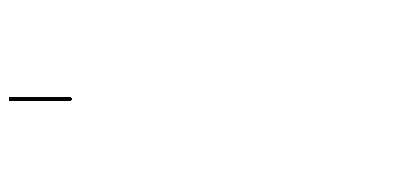


24*x*5

120 : 24 . *x*7 : *x*5

5*x*2

b) 3 *x* 3 : 1 *x* 3 *x*3 : 1 *x*



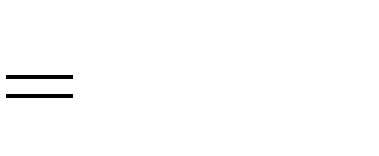
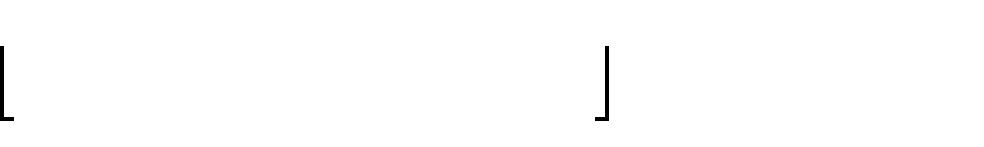
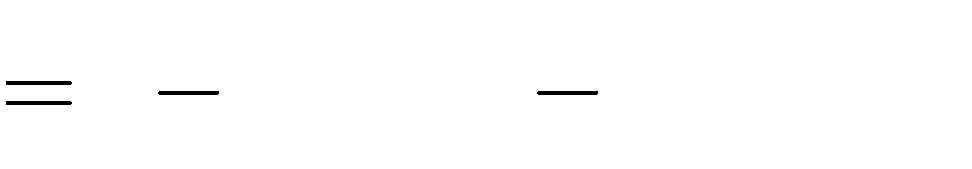
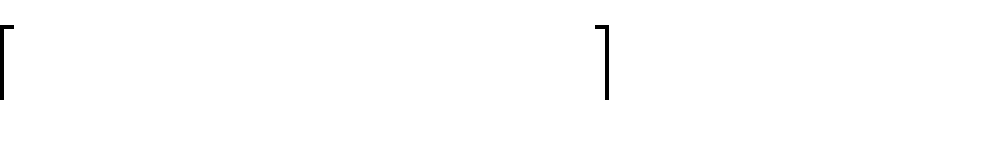
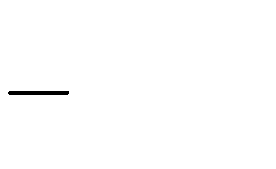
3 : 1 . *x*3 : *x*

4 8

6*x*2

4 8 4 8

c) -3,72*x*5 :

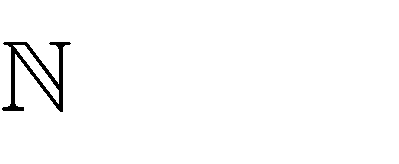
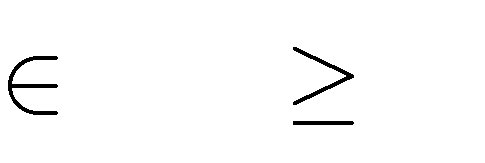


4*x*2

3, 72 : 4 . *x*5 : *x*2 0, 93*x*3

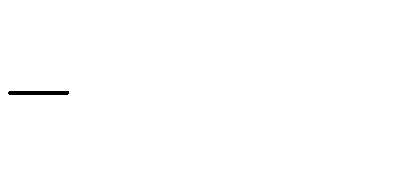
**Bài 4.** Tính

a) 12*x*4 : 6*x*2



; *m n*

b)



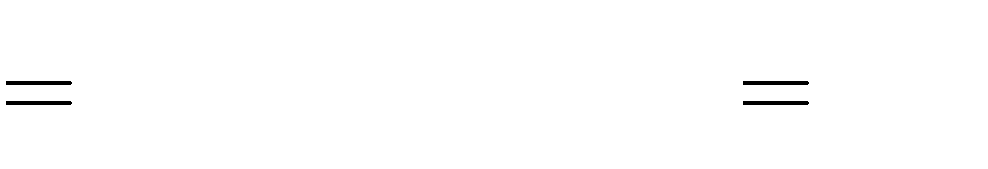
24*xm* :

# Lời giải:

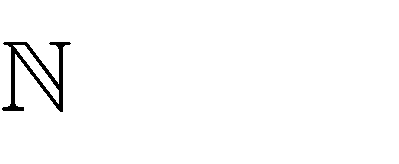
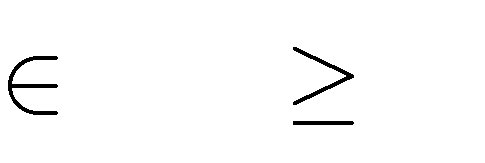
6*xn*

*m*, *n*

a) 12*x*4 : 6*x*2

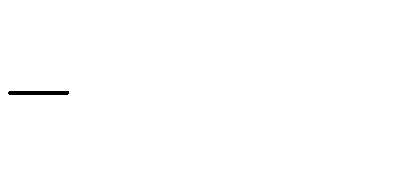


12 : 6 . *x*4 : *x*2 2*x*2



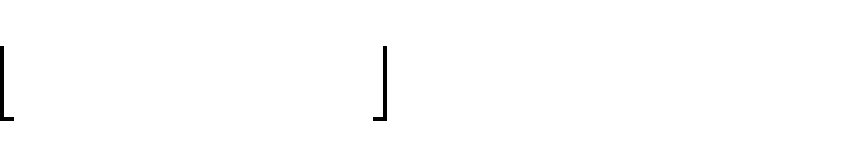
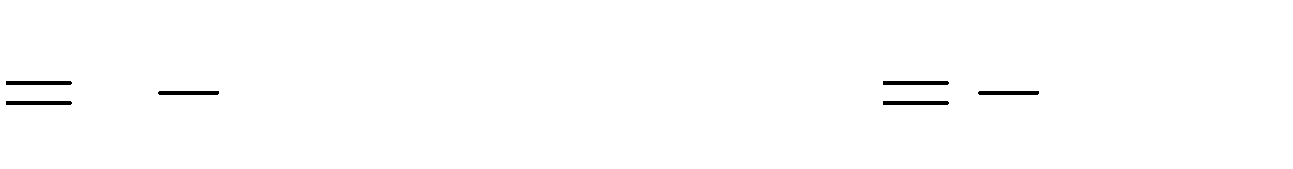
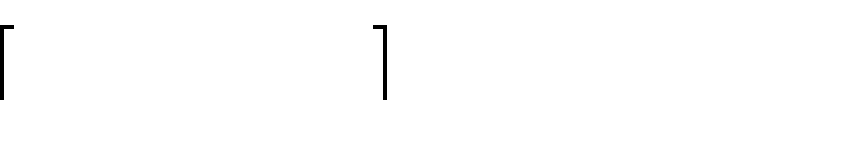
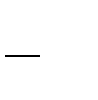
; *m n*

b) 6*xn*



24*xm* :

*m*, *n*



24 : 6 . *xm* : *xn*

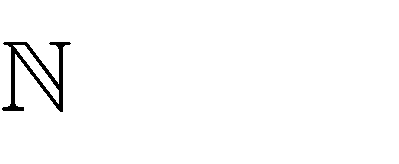
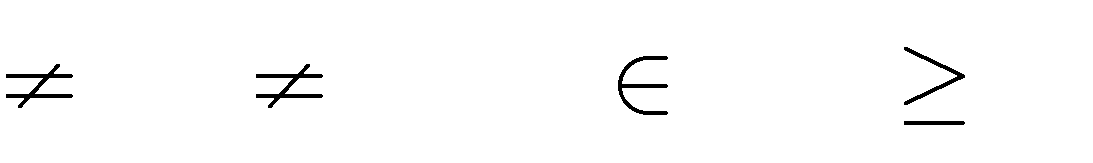
4*xm n*

**Bài 5.** Tính

a) 3*x*6 : 0, 5*x*4

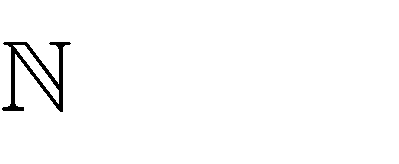
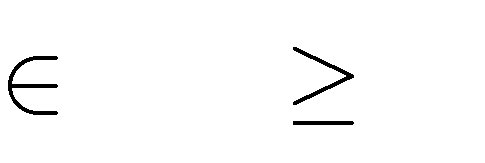
d) 4*x*3 : *x*2

c) *axm* : *bxn a*



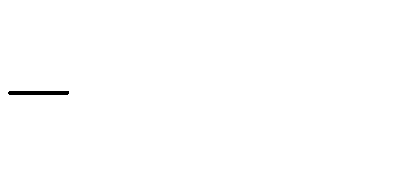
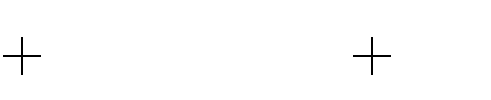
0;*b* 0; *m*, *n*

; *m n*



; *m n*

d)

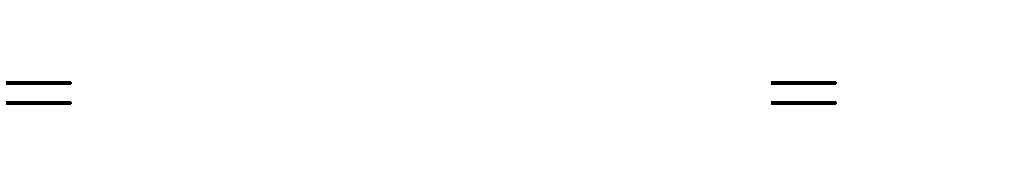


12*xm* 2 : 4*xn* 2

# Lời giải:

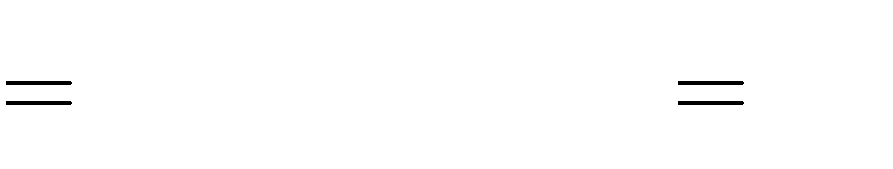
*m*, *n*

a) 3*x*6 : 0, 5*x*4



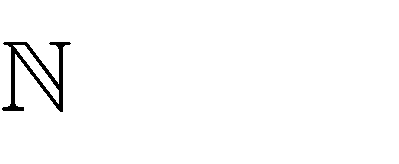
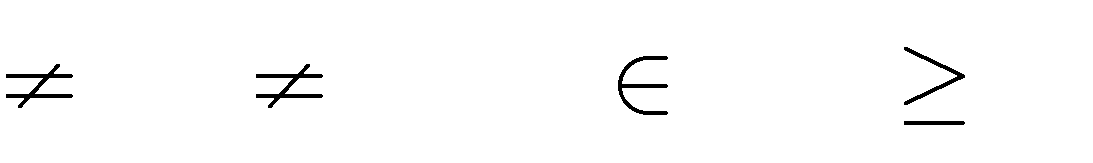
3 : 0, 5 . *x*6 : *x*4 6*x*2

1. 4*x*3 : *x*2



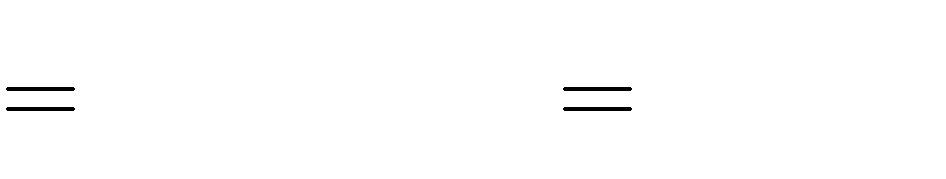
4 :1 . *x*3 : *x*2 4*x*

1. *axm* : *bxn a*



0;*b* 0; *m*, *n*

; *m n*

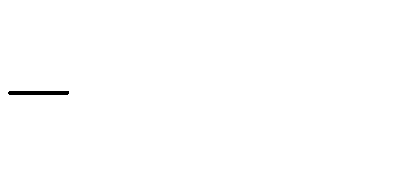
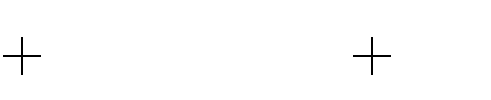


*a* . *xm* : *xn b*

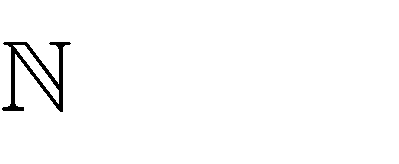
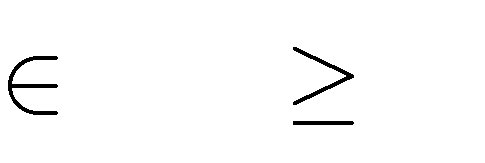
*a* .*xm n*

*b*

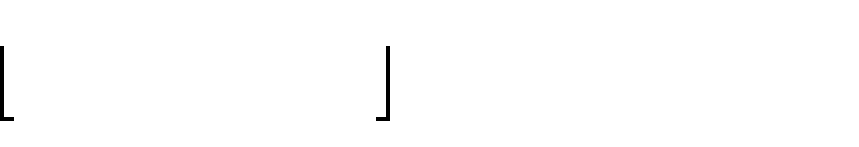
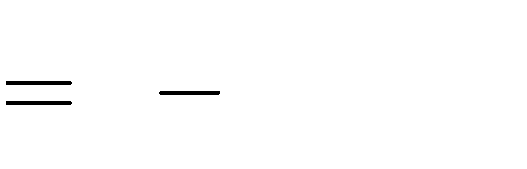
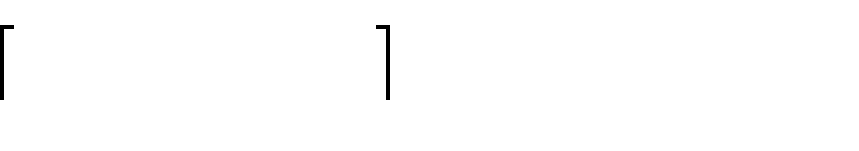
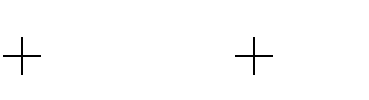
1. *m*, *n*



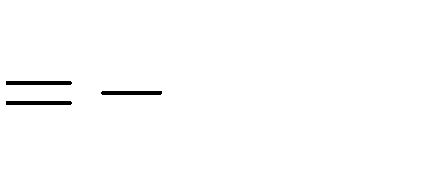
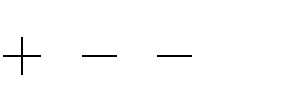
12*xm* 2 : 4*xn* 2



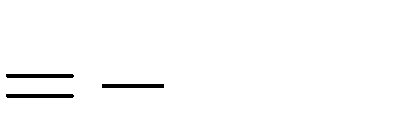
; *m n*



12 : 4 . *xm* 2 : *xn* 2



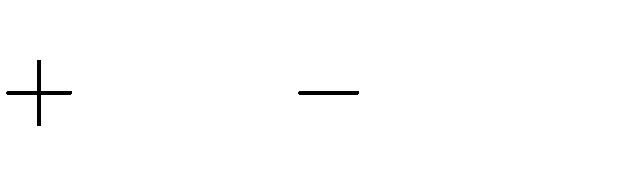
3. *xm* 2 *n* 2



3*xm n*

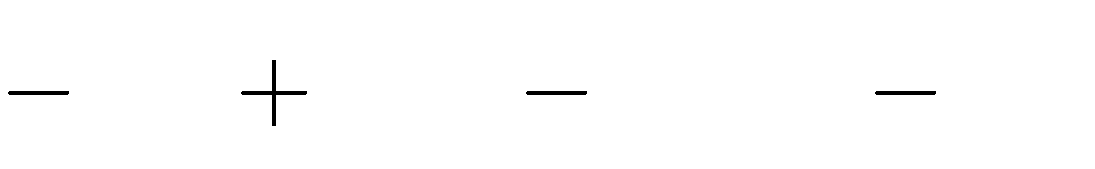
**Bài 6.** Tính

a) *x*3

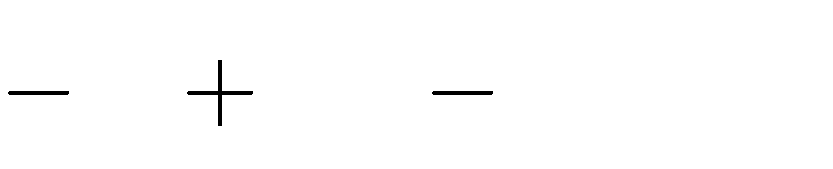


12*x*2 5*x* : *x*

b)



5*x*4 15*x*3 18*x* : 5*x*



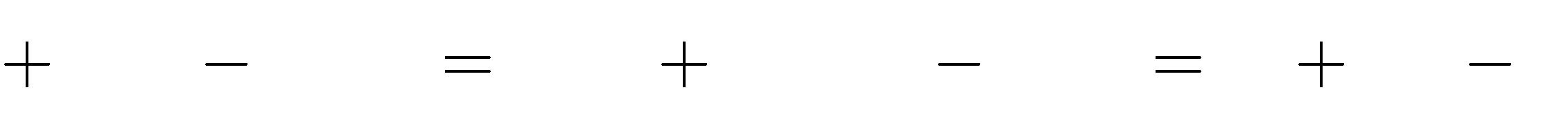
c)

*x*6

5*x*4 2*x*3 : 0, 5*x*2

# Lời giải:

a) *x*3

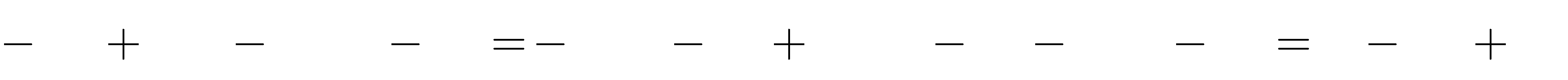


12*x*2 5*x* : *x x*3 : *x* 12*x*2 : *x* 5*x* : *x*

*x*2

12*x* 5

b)



5*x*4 15*x*3 18*x* : 5*x*

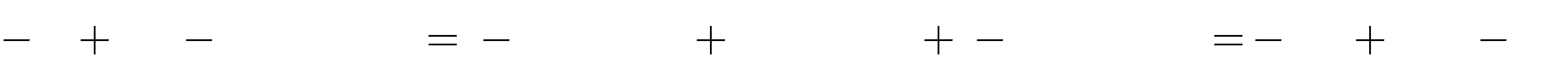
5*x*4 : 5*x* 15*x*3 : 5*x* 18*x* : 5*x*

*x*3

3*x*2 18

5

c)



*x*6

5*x*4

2*x*3 : 0, 5*x*2

*x*6

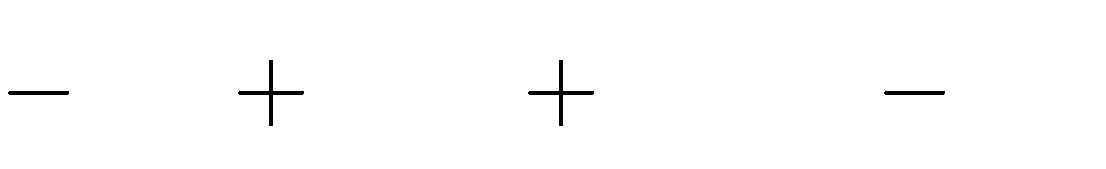
: 0, 5*x*2

5*x*4 : 0, 5*x*2

2*x*3 : 0, 5*x*2

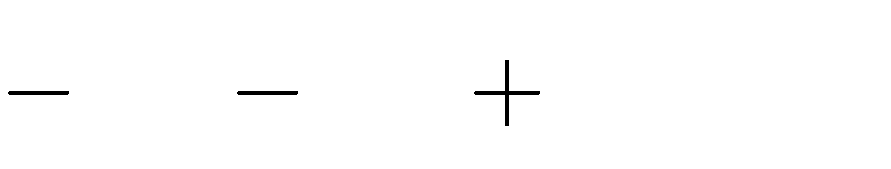
2*x*4 10*x*2 4*x*

**Bài 7.** Thực hiện các phép chia đa thức sau a)

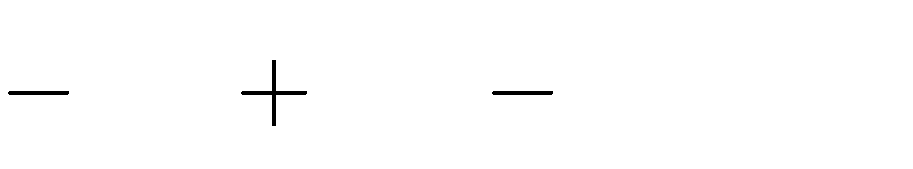


3*x*3 15*x*2 81*x* : 3*x*

b)



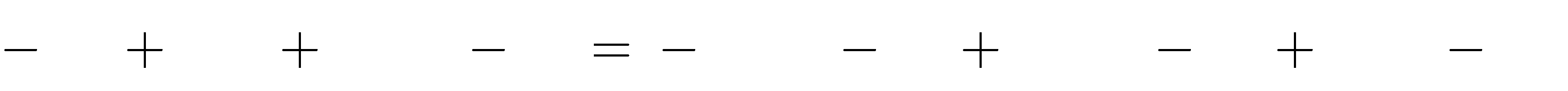
3*x*5 5*x*3 *x*2 : 2*x*2



c) 6*x*5 7*x*4 6*x*3 : 3*x*3

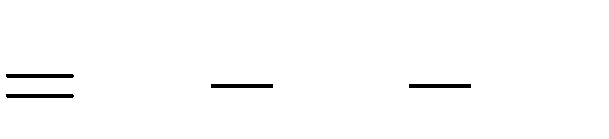
# Lời giải:

a)



3*x*3 15*x*2 81*x* : 3*x*

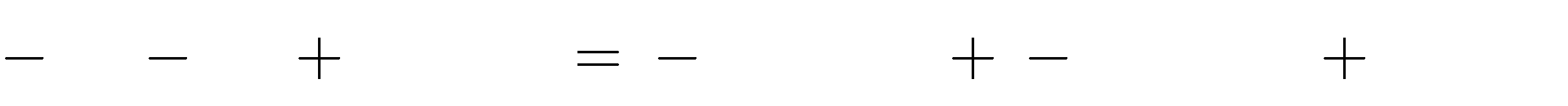
3*x*3 : 3*x* 15*x*2 : 3*x* 81*x* : 3*x*



*x*2

5*x* 27

b)



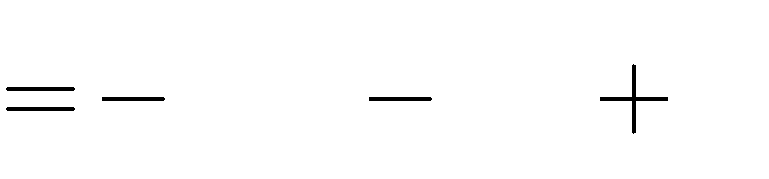
3*x*5 5*x*3

*x*2

: 2*x*2

3*x*5 : 2*x*2

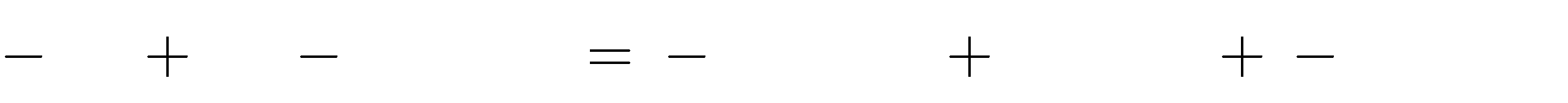
5*x*3 : 2*x*2 *x*2 : 2*x*2



3 *x*3 5 *x* 1

2 2 2

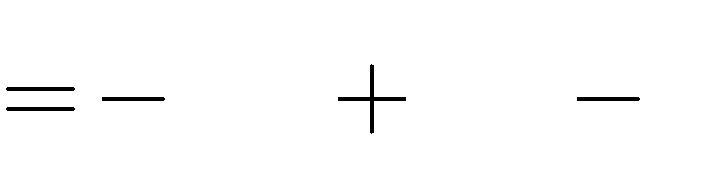
c)



6*x*5 7*x*4 6*x*3 : 3*x*3

6*x*5 : 3*x*3 7*x*4 : 3*x*3

6*x*3 : 3*x*3



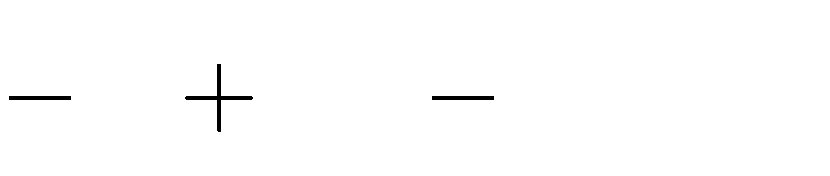
2*x*2

7 *x*

3

2

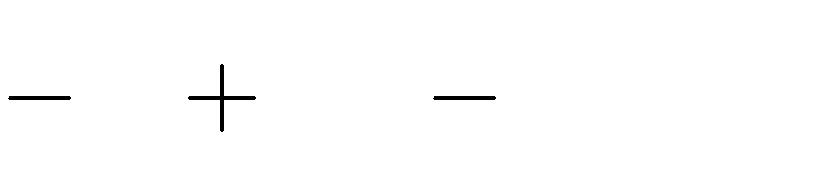
**Bài 8.** Thực hiện phép chia

a) *x*5

5*x*4

2*x*2

: 0,5*x* 2



b)

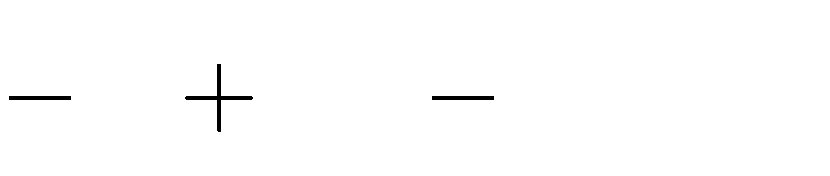
*x*6

5*x*5

2*x*4 : 2*x*2

2

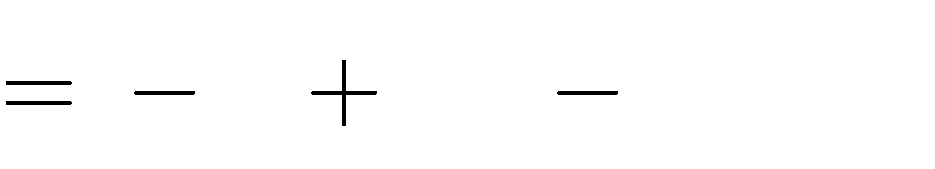
# Lời giải:

a) *x*5

5*x*4

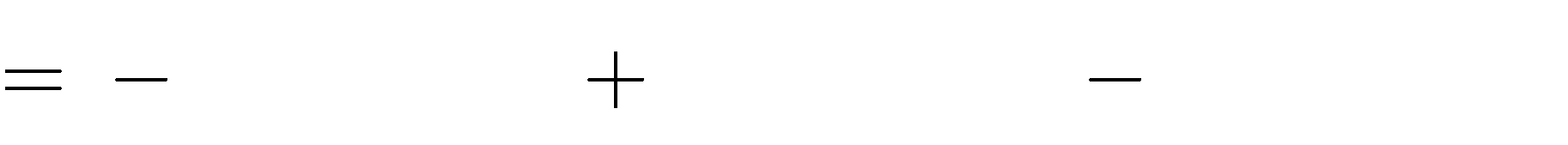
2*x*2

: 0,5*x* 2

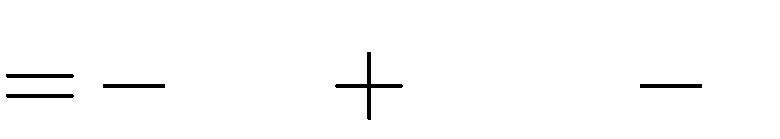
*x*5 5*x*4

2*x*2

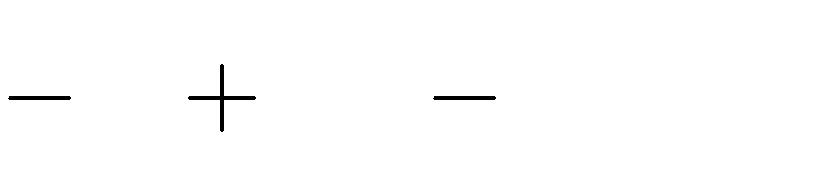
: 0, 25*x*2



*x*5 : 0, 25*x*2 5*x*4 : 0, 25*x*2 2*x*2 : 0, 25*x*2



4*x*3 20*x*2 8



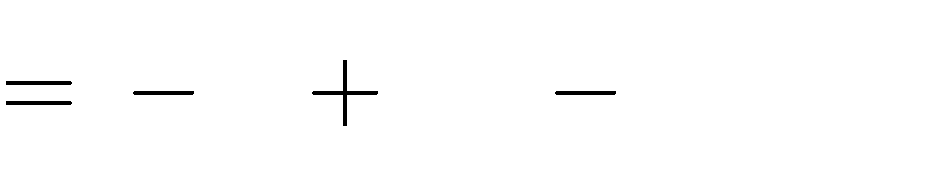
b)

*x*6

5*x*5

2*x*4 : 2*x*2

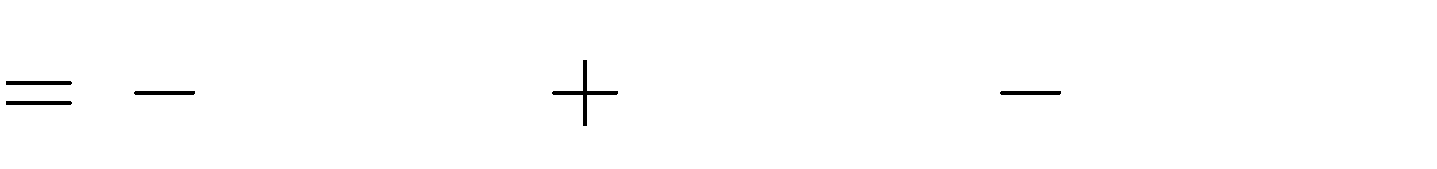
2



*x*6

5*x*5

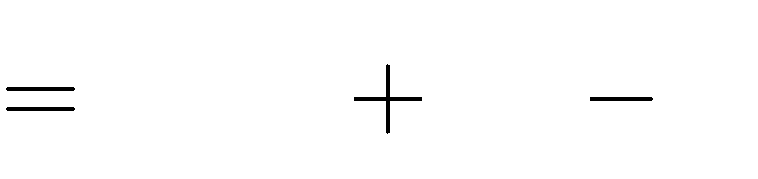
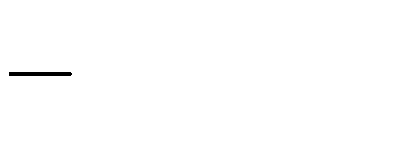
2*x*4 : 4*x*4



*x*6

: 4*x*4

5*x*5 : 4*x*4 2*x*4 : 4*x*4

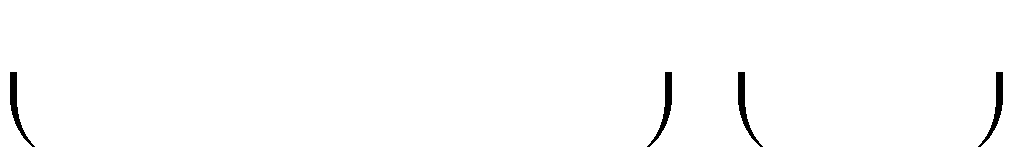
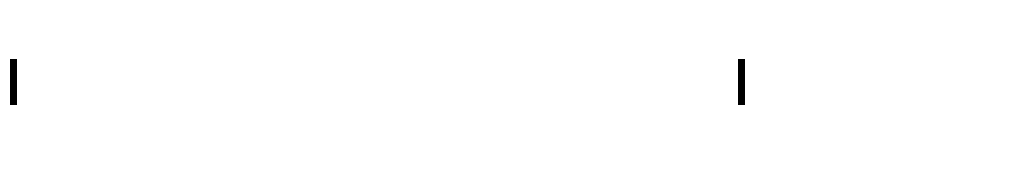
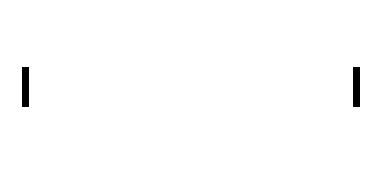
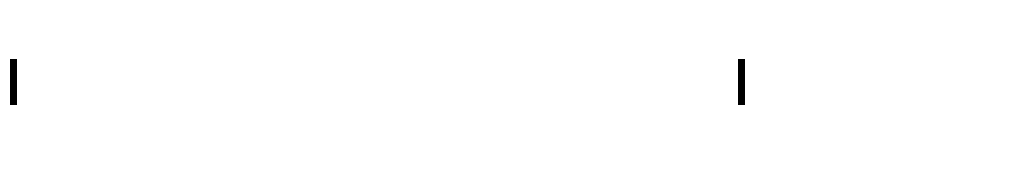
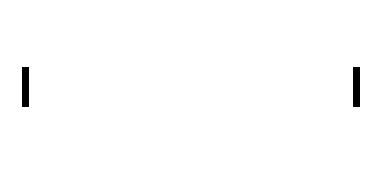
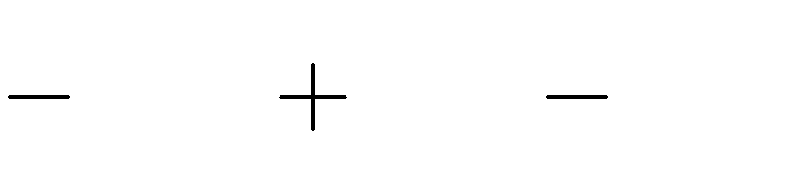
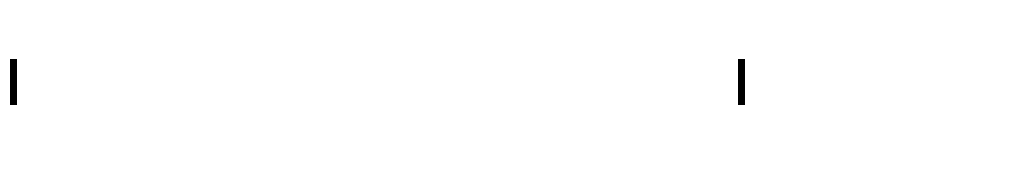
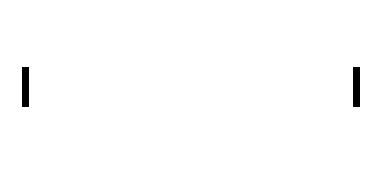
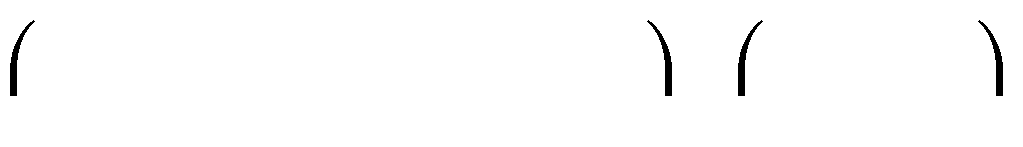


1 *x*2 5 *x* 1

4 4 2

**Bài 9.** Thực hiện phép chia a)

b)



1 *x*4

2

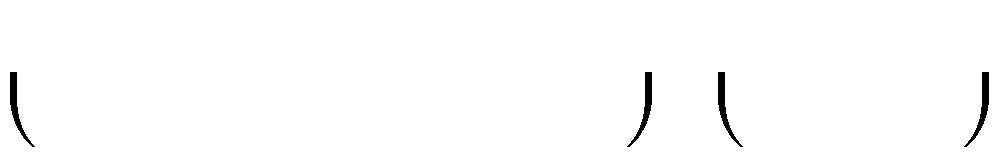
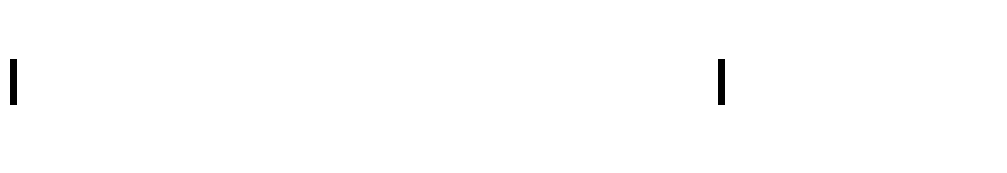
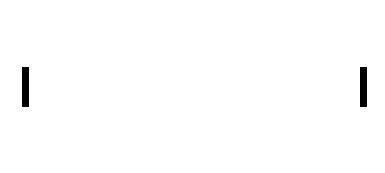
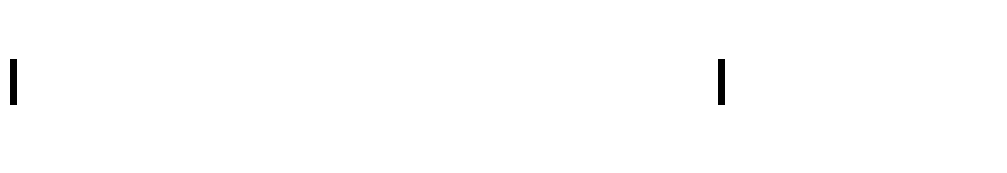
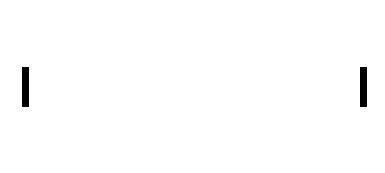
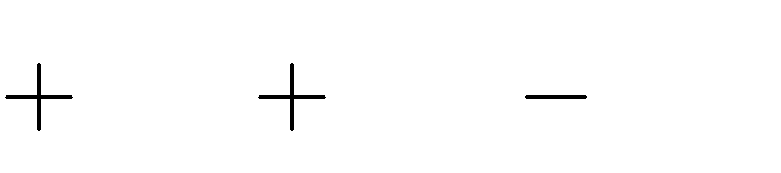
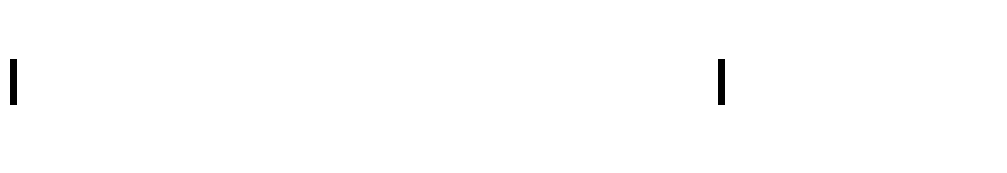
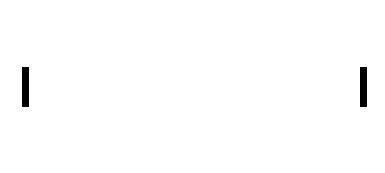
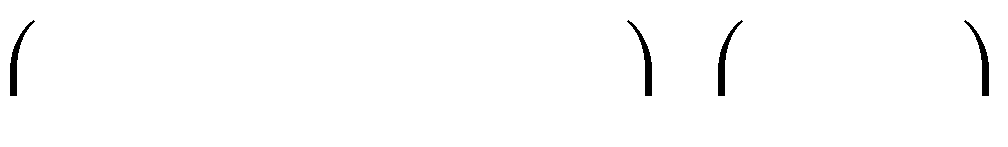
1 *x*3

4

*x* :

1 *x*

8



1 *x*5

2

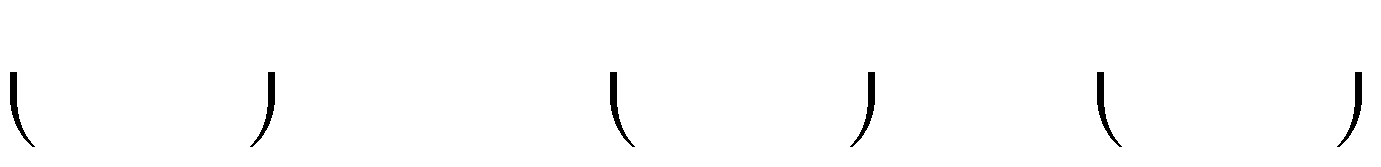
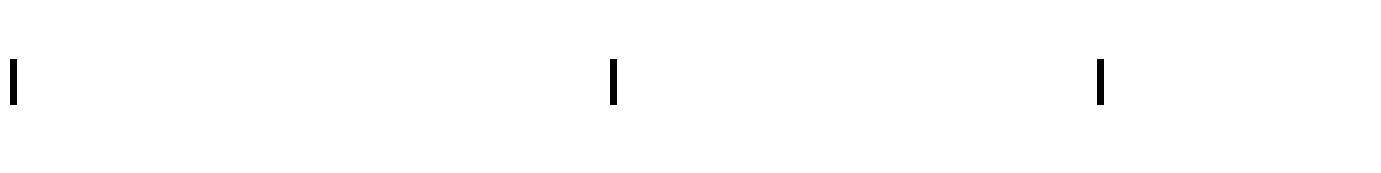
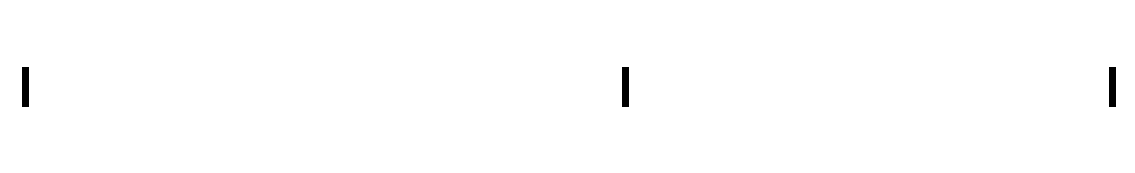
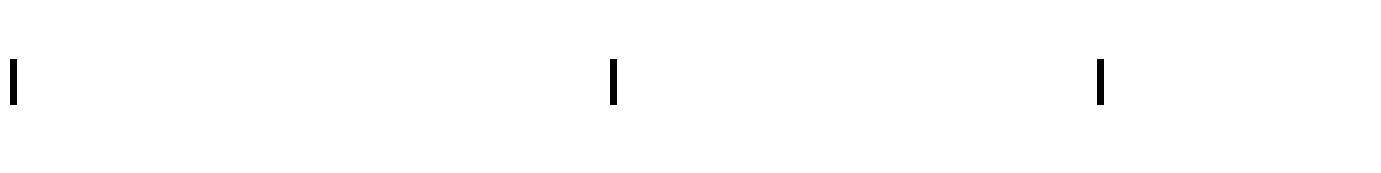
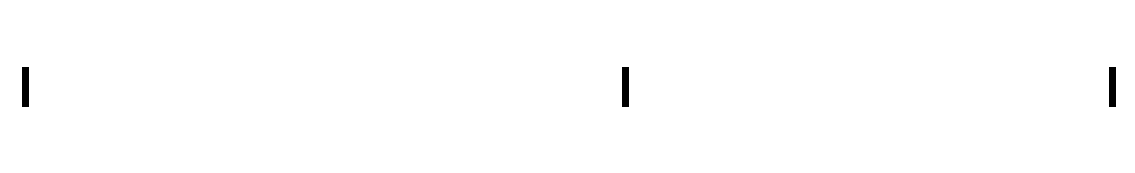
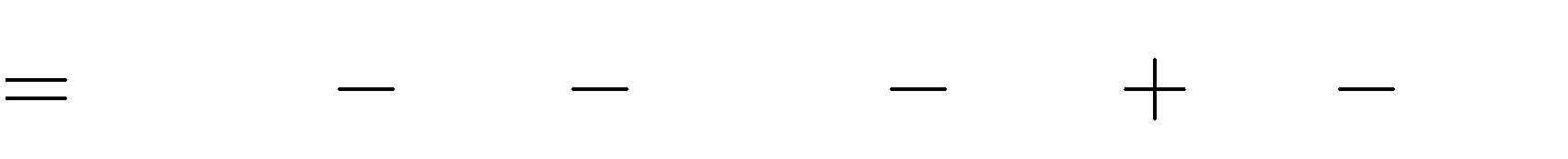
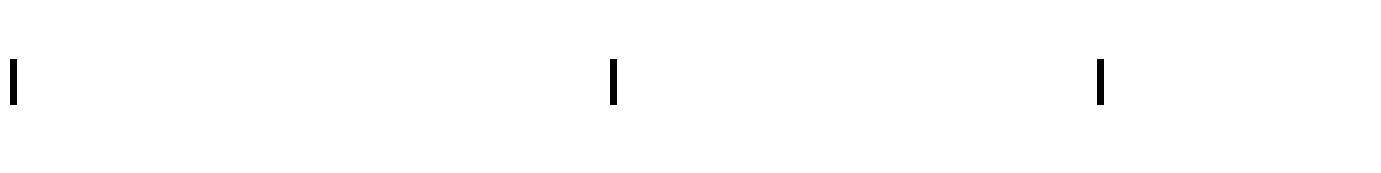
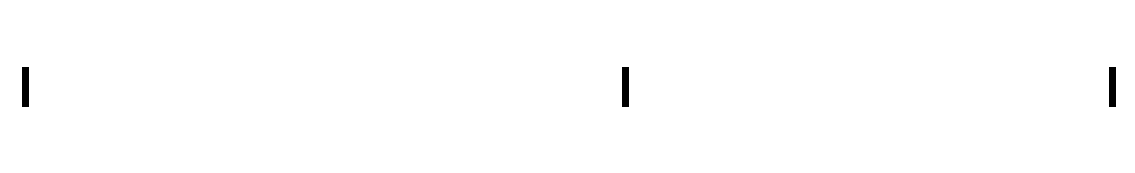
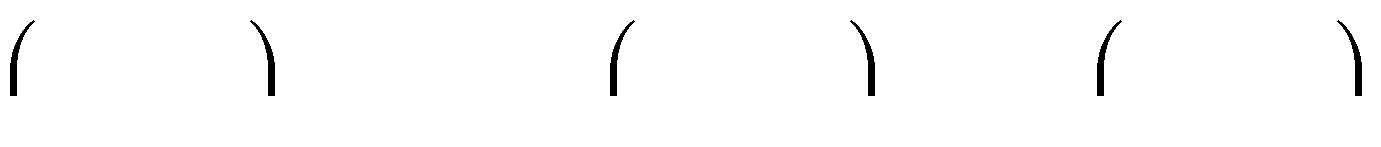
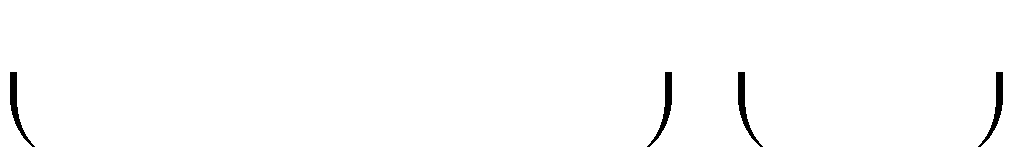
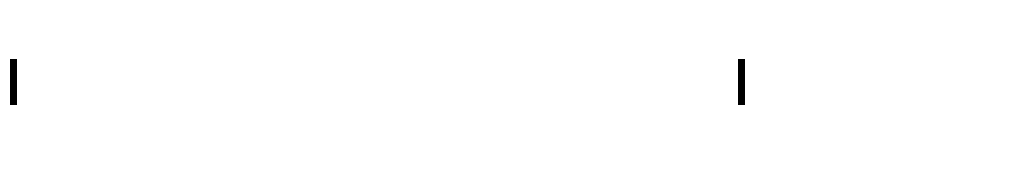
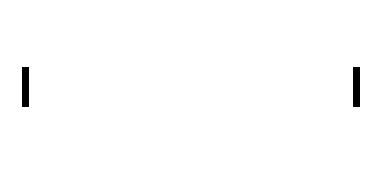
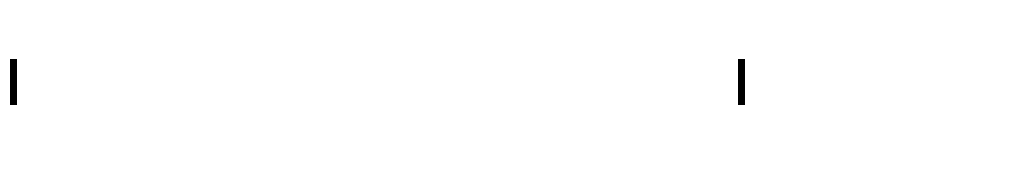
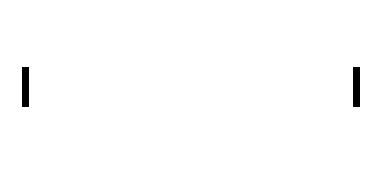
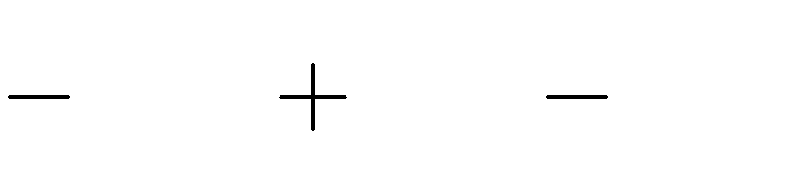
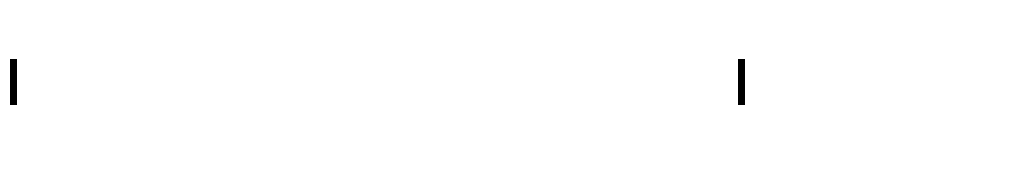
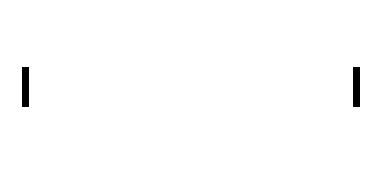
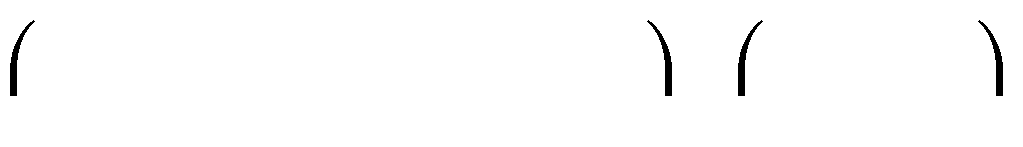
2*x*2

*x* :

1 *x*

4

# Lời giải:



1 *x*4

2

1 *x*3

4

*x* :

1 *x*

8

1 *x*4 :

2

1 *x*

8

1 *x*3 :

4

1 *x*

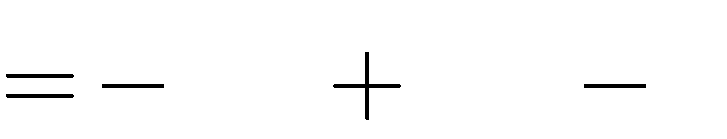
8

*x* :

1 *x*

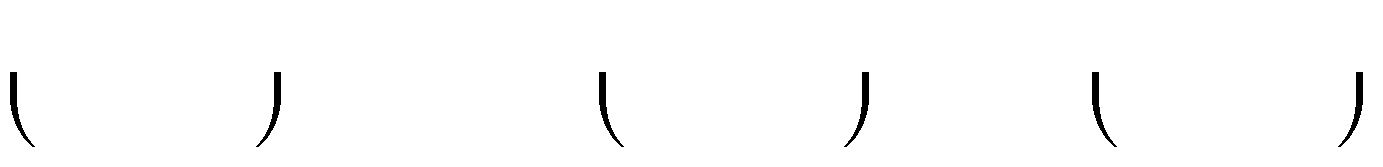
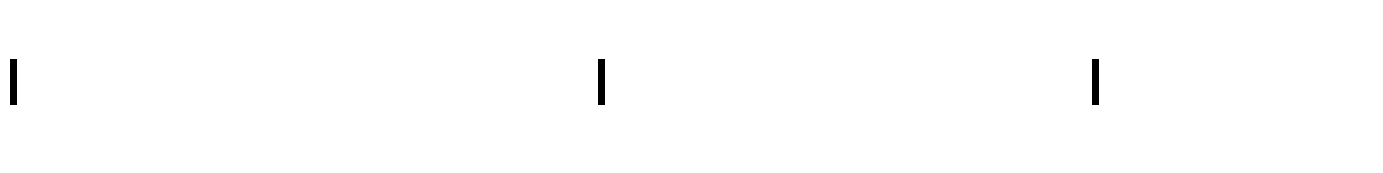
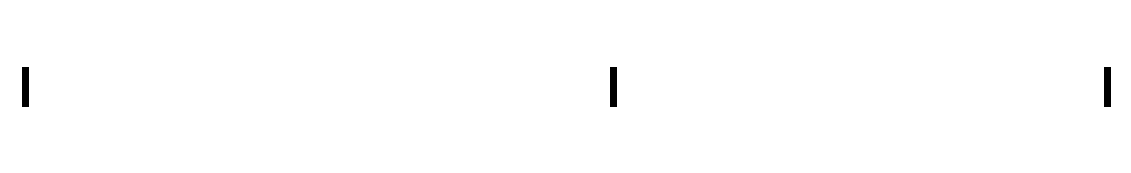
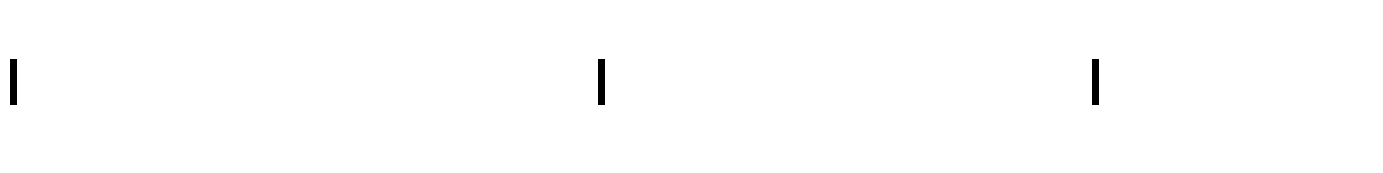
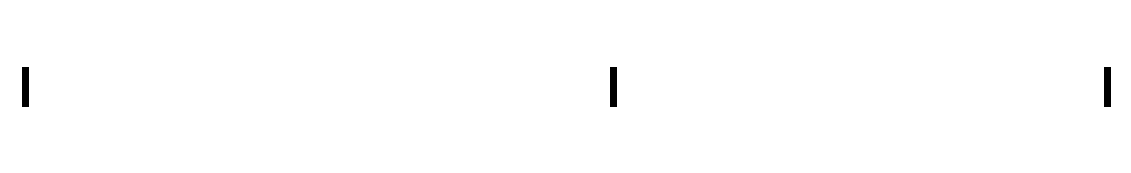
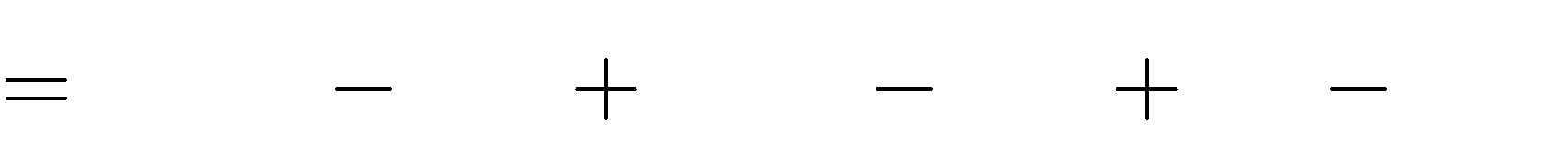
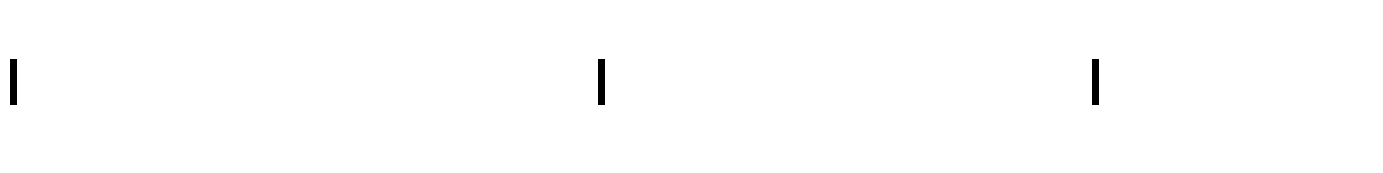
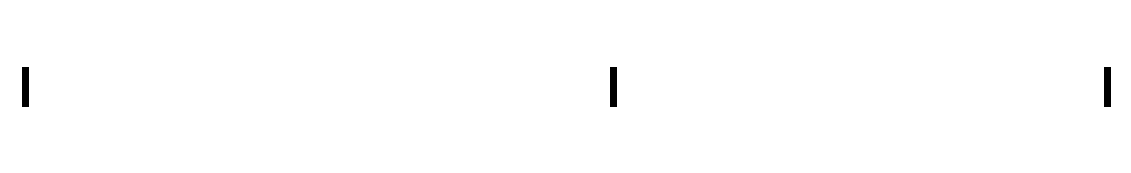
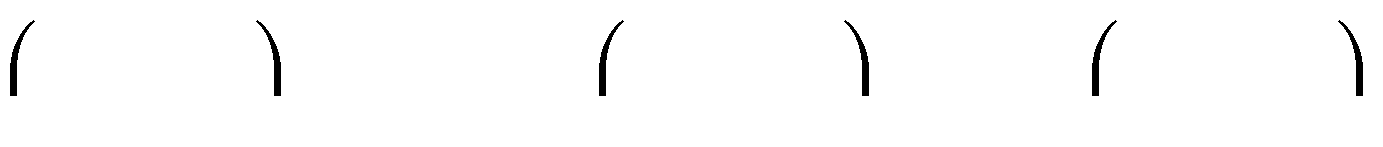
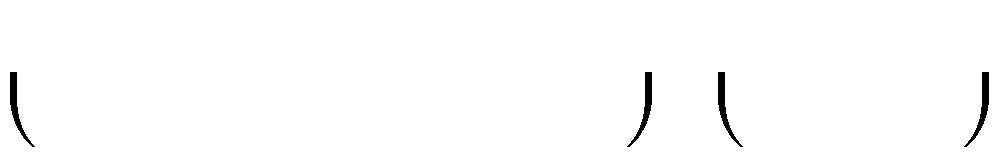
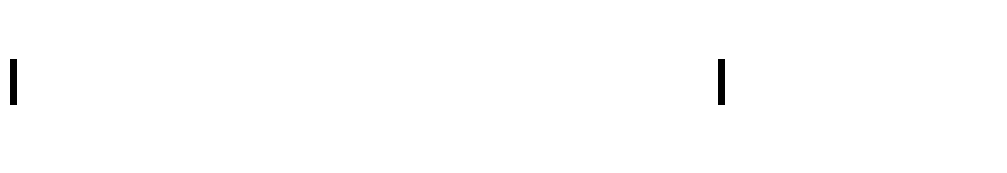
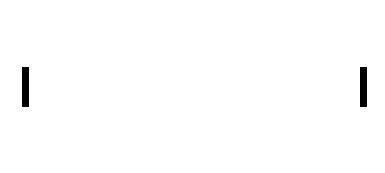
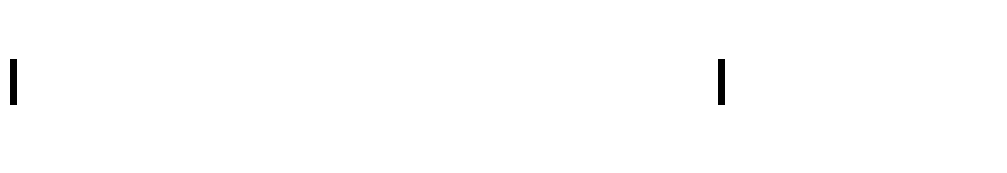
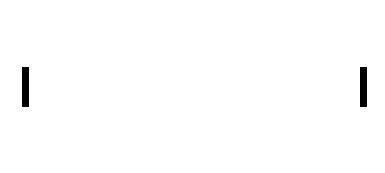
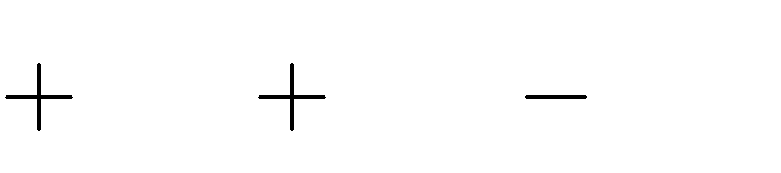
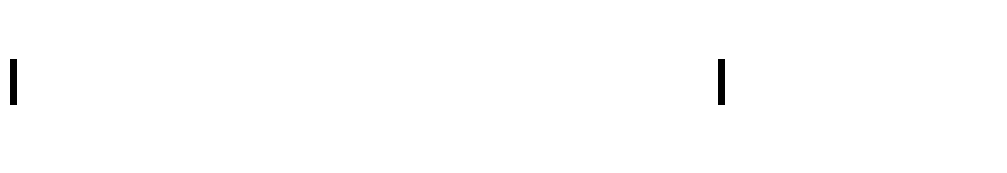
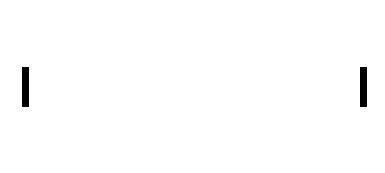
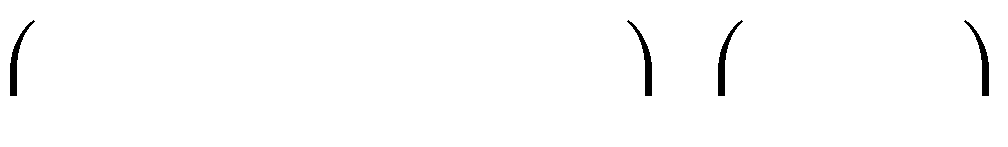
8

a)



4*x*3 2*x*2 8

b)



1 *x*5

2

2*x*2

*x* :

1 *x*

4

1 *x*5 :

2

1 *x*

4

2*x*2 :

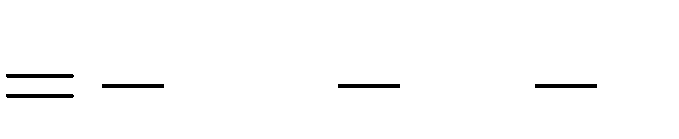
1 *x*

4

*x* :

1 *x*

4



2*x*4 8*x* 4

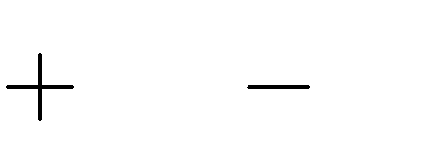
**Bài 10.** Thực hiện phép chia

0, 25*x*7

3*x*5

*x*4 cho 0, 5*xn*

trong mỗi trường hợp sau:

1. *n*



3

1. *n*



4

# Lời giải:



3

a) Với

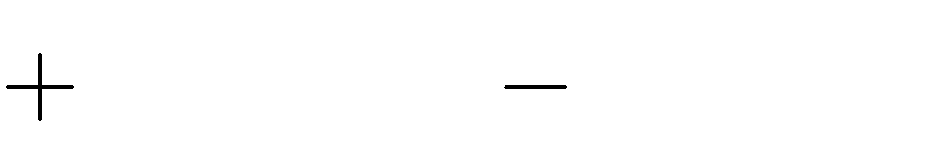
*n* ta có:

0, 25*x*7

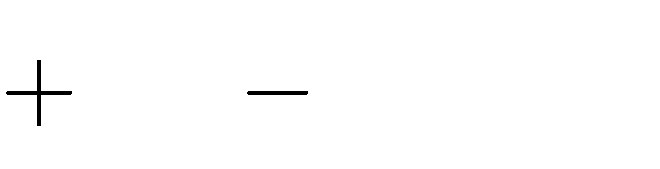
3*x*5

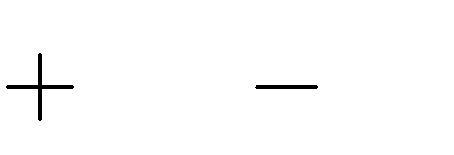
*x*4 : 0,5*x*3

=0, 25*x*7: 0,5*x*3



3*x*5: 0,5*x*3 *x*4: 0,5*x*3

=0,5*x*4



6*x*2 2*x*

a) Với



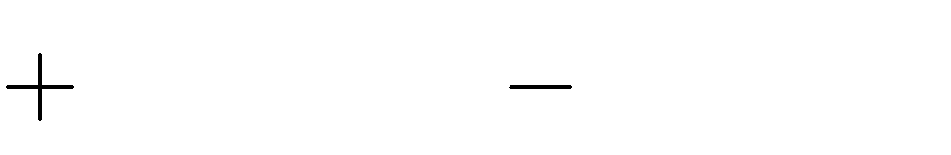
4

*n* ta có:

0, 25*x*7

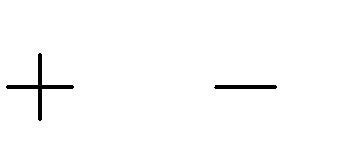
3*x*5

*x*4 : 0,5*x*4

=0, 25*x*7: 0,5*x*4

3*x*5: 0,5*x*4 *x*4: 0,5*x*4

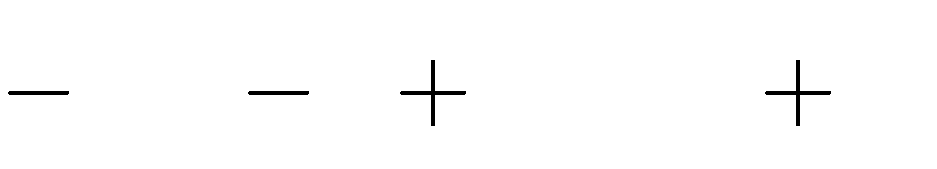
=0,5*x*3



6*x* 2

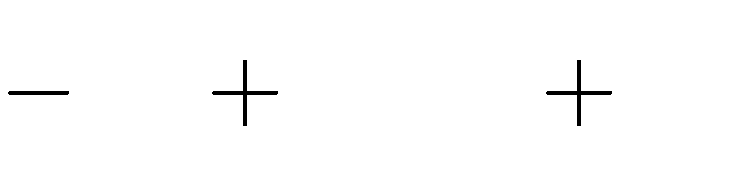
**Bài 11.** Tính

1. 2*x*3



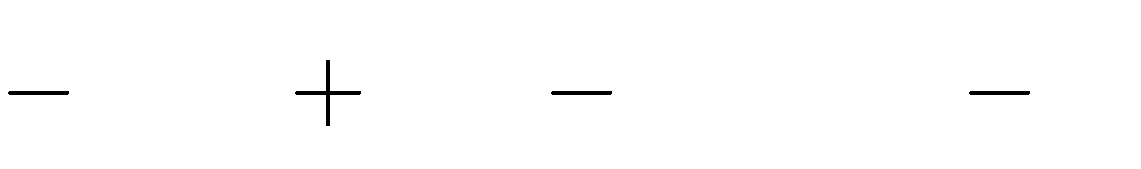
5*x*2 *x* 1 : 2*x* 1

1. *x*3



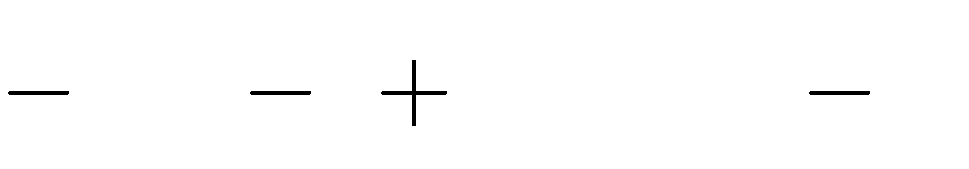
2*x* 4 : *x* 2

1. 6*x*3



19*x*2 23*x* 12 : 2*x* 3

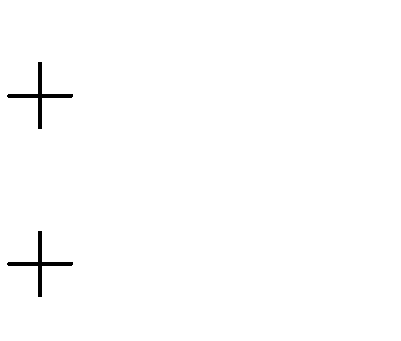
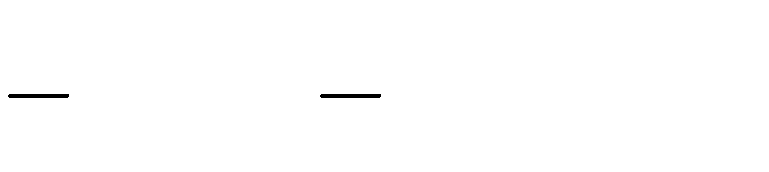
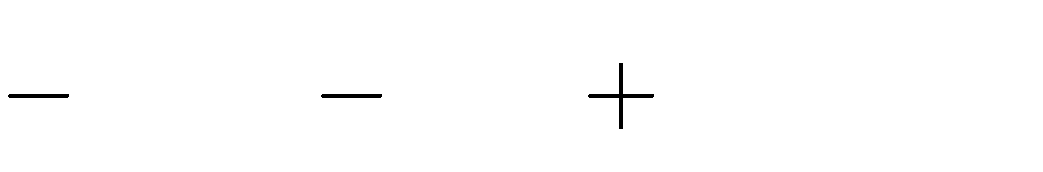
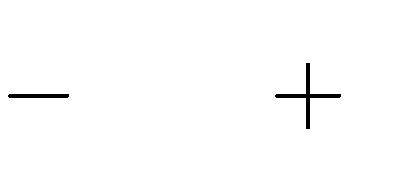
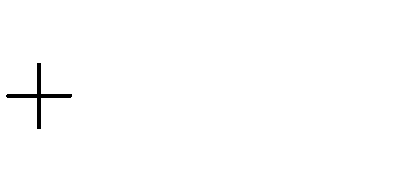
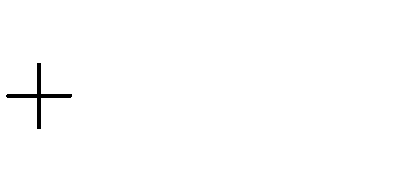
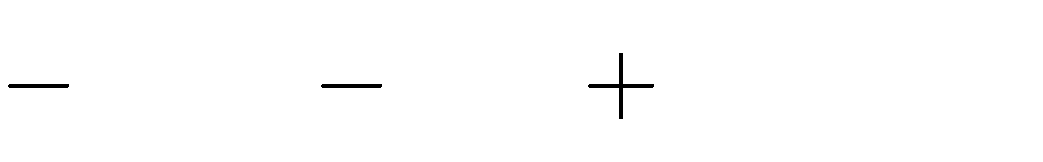
1. *x*4



2*x*3 1 2*x* : *x*2 1

# Lời giải:

a)



2*x*3

2*x*3

5*x*2

*x*2

6*x*2

6*x*2

*x*

1 2*x*

*x*2

1

1

3*x*

1

*x*

3*x* 2*x*

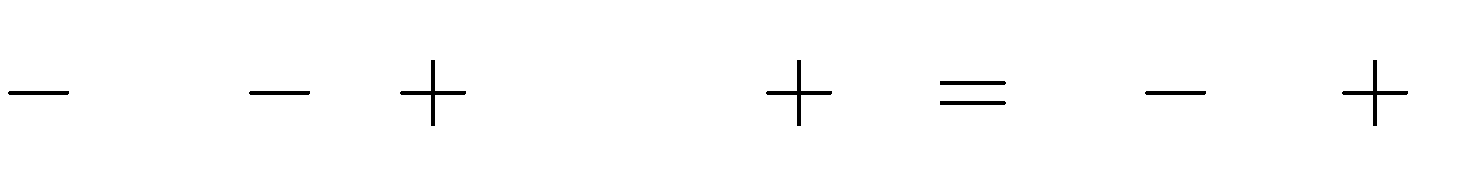
2*x*

1

1

0

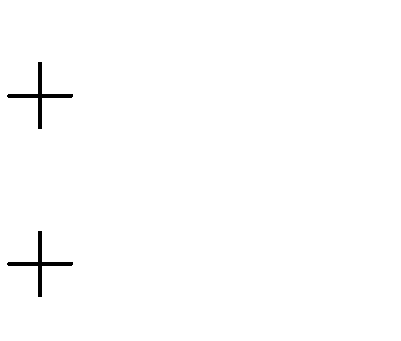
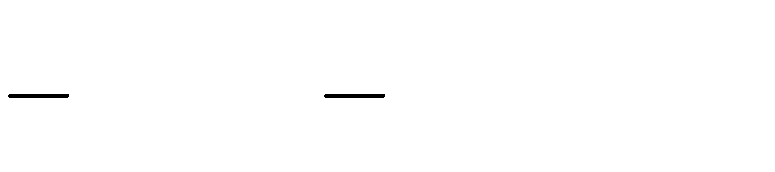
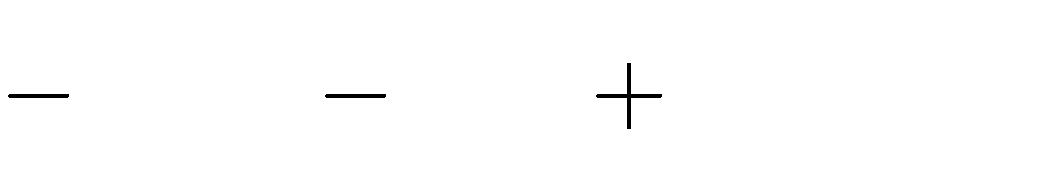
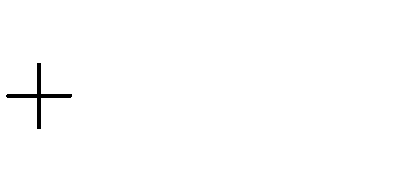
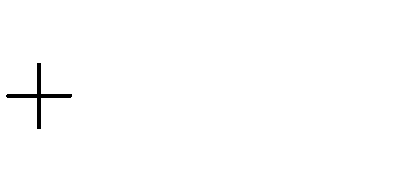
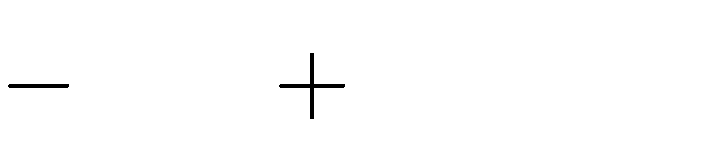
Vậy b)



5*x*2 *x* 1 : 2*x* 1

*x*2

3*x* 1



*x*3

*x*3

2*x*

4

2*x*2

2*x*2

2*x*2

*x x*2

2

2*x*

2

2*x* 4*x*

2*x*

2*x*

4

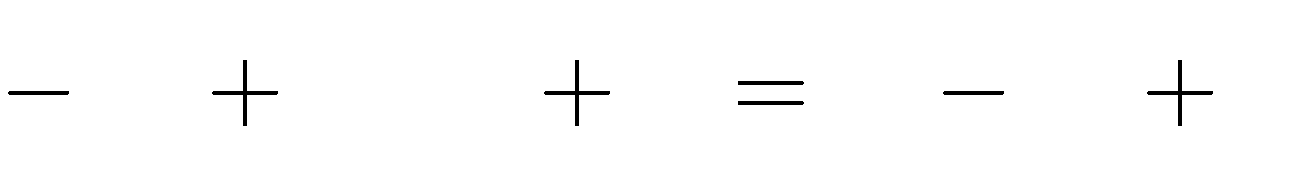
4

4

0

2*x*3

Vậy *x*3

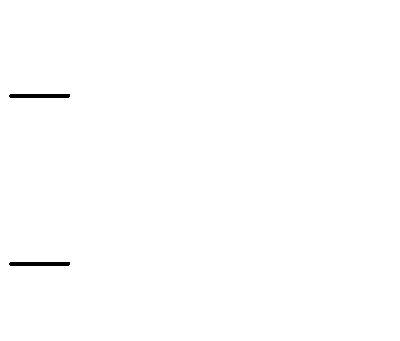
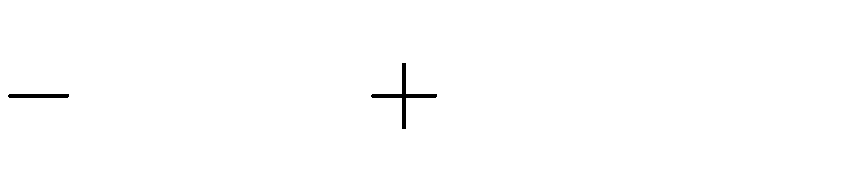
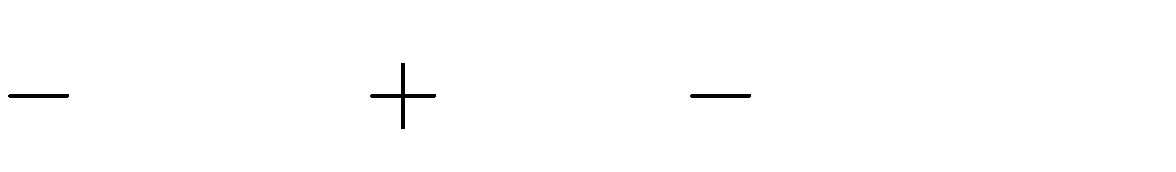
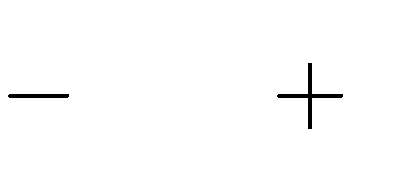
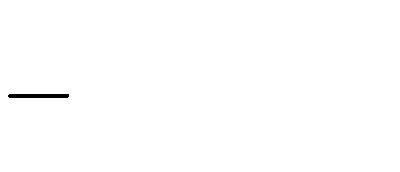
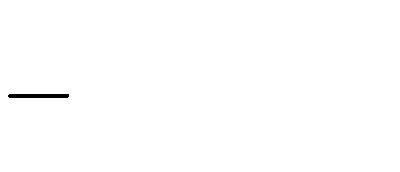
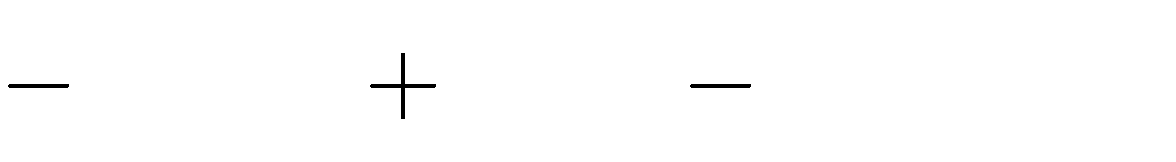


2*x* 4 : *x* 2

*x*2

2*x* 2

c)



6*x*3

6*x*3

19*x*2

9*x*2

10*x*2

10*x*2

23*x*

12 2*x* 3*x*2

12

3

5*x*

4

23*x* 15*x*

8*x*

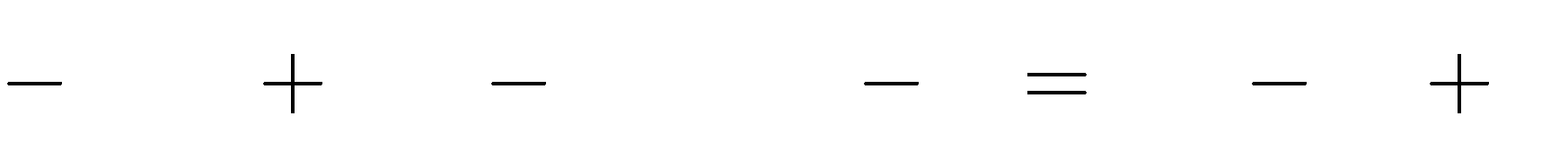
8*x*

12

12

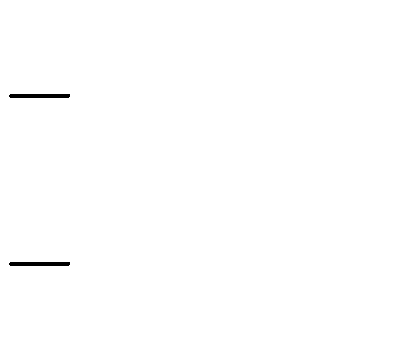
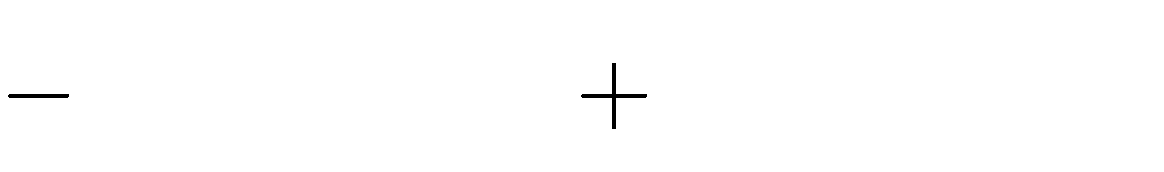
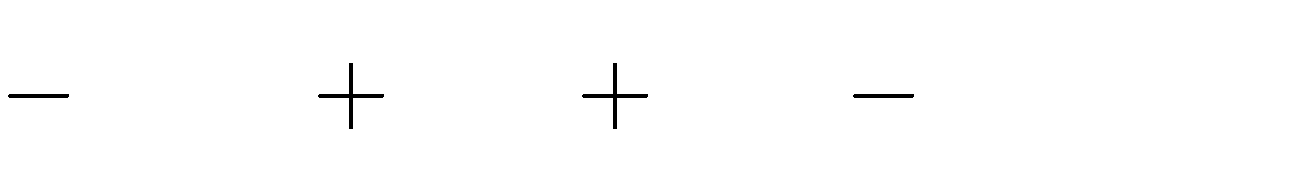
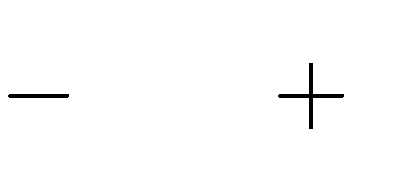
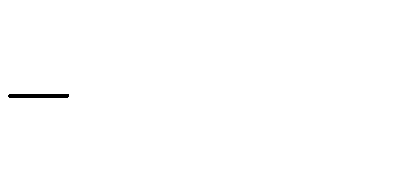
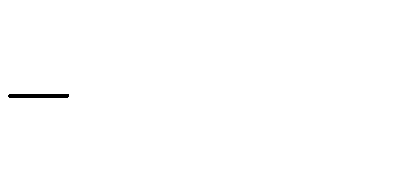
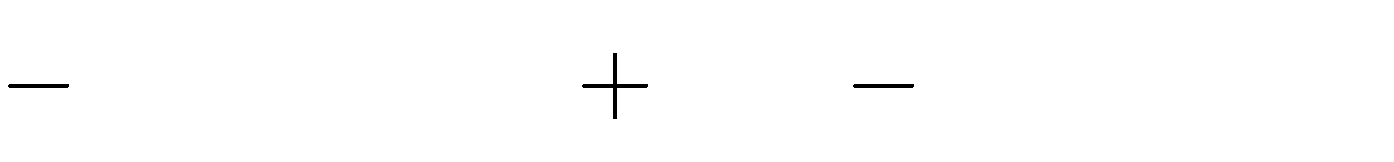
0

Vậy 6*x*3



19*x*2 23*x* 12 : 2*x* 3 3*x*2 5*x* 4

d)



*x*4

*x*4

2*x*3

2*x*

*x*2

*x*2

2*x*

2*x*

1 *x*2

*x*2

1

1

2*x*

1

2*x*3

2*x*3

*x*2

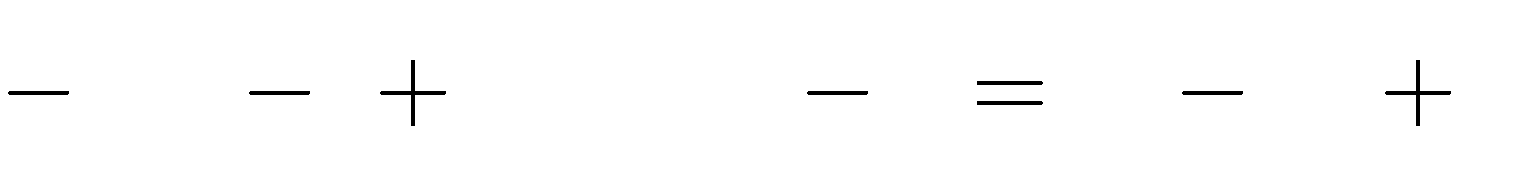
*x*2

1

1

0

Vậy *x*4



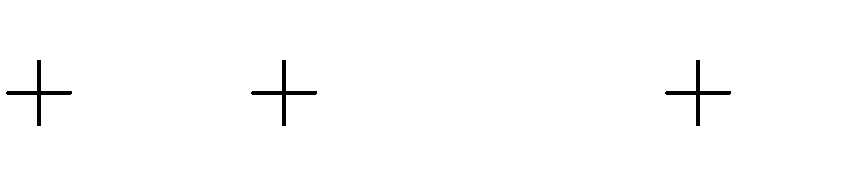
2*x*3 1 2*x* : *x*2 1

*x*2

2*x* 1

**Bài 12.** Thực hiện phép chia đa thức sau

a) *x*4



8*x*2 16 : *x*2 4

b)

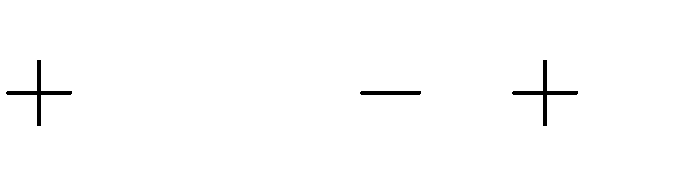


*x*2

25 : *x*

5

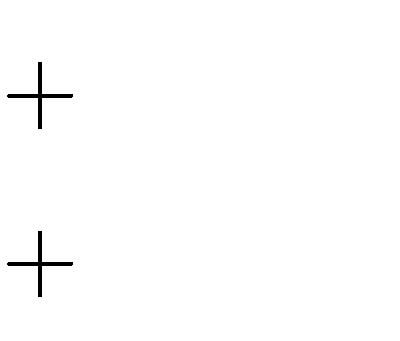
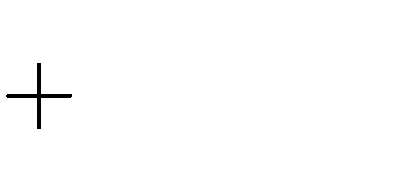
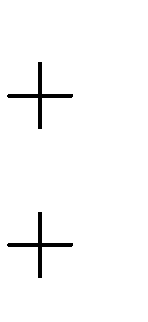
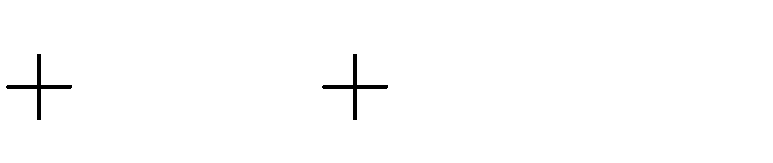
c) *x*3



1 : *x*2 *x* 1

# Lời giải:

a)



*x*4

*x*4

8*x*2

4*x*2

4*x*2

4*x*2

16

*x*2

*x*2

4

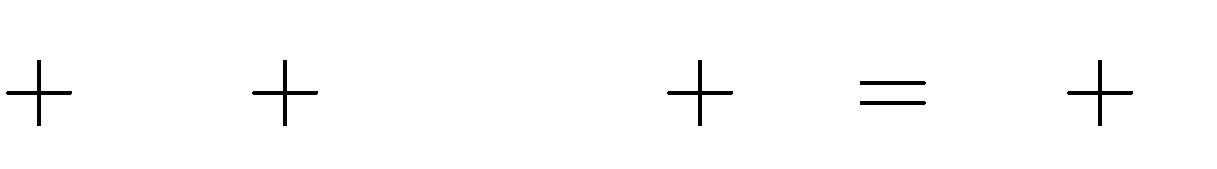
4

16

16

0

Vậy *x*4

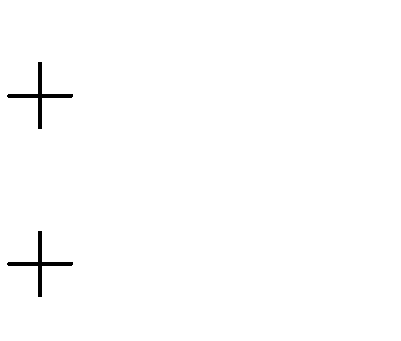
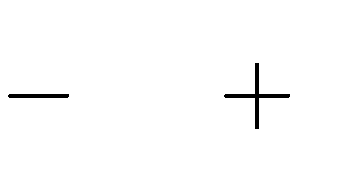
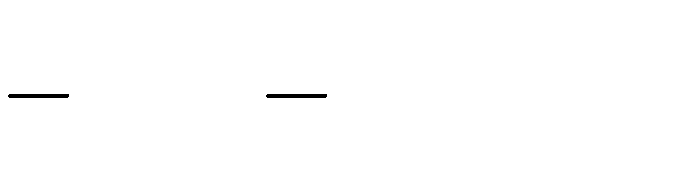
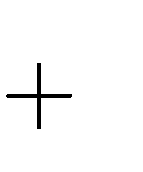
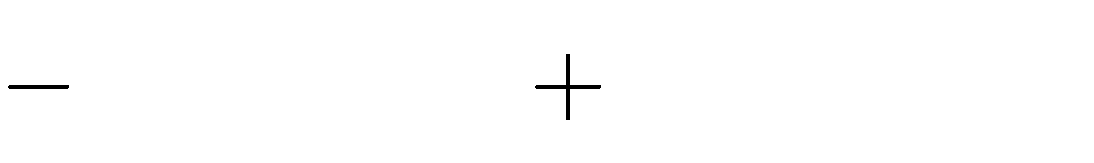


8*x*2 16 : *x*2 4

*x*2

4

b)



*x*2

*x*2

25

*x*

5*x* 5*x*

5*x*

*x*

5

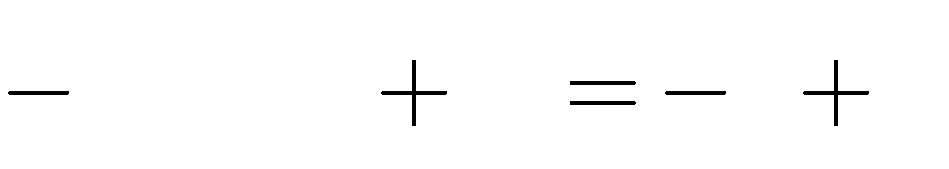
5

25

25

0

Vậy 25



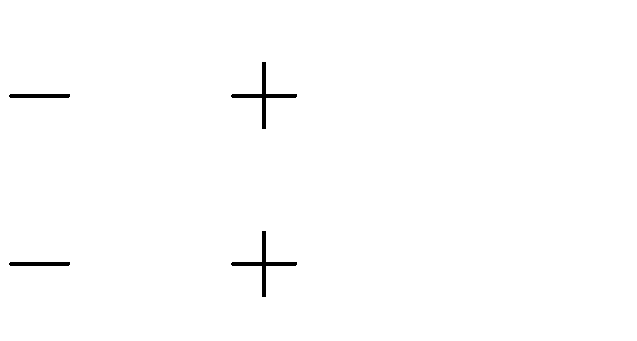
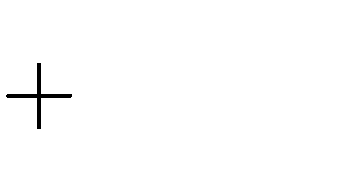
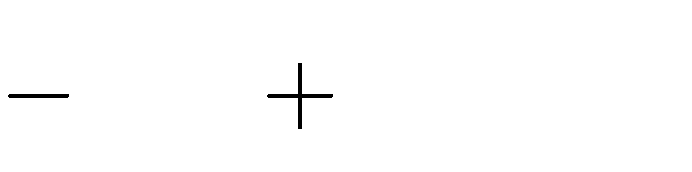
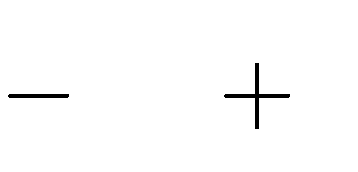
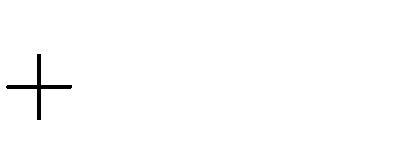
*x*2

: *x*

5

*x* 5

c)



*x*3

*x*3 *x*2

*x*2

*x*2

*x x*

*x*

1 *x*2

*x*

1

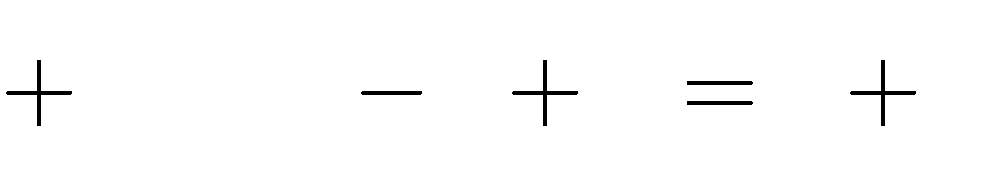
1

*x* 1

1

0

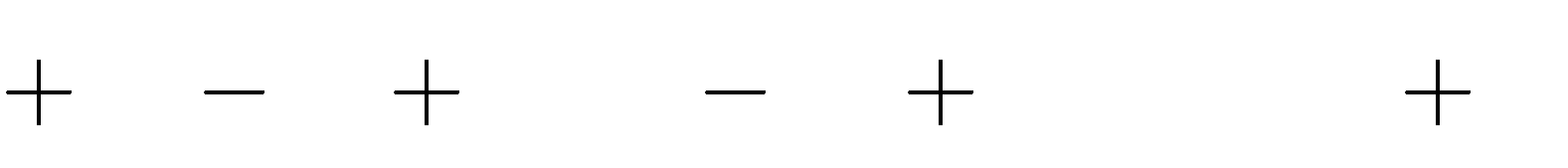
Vậy *x*3



1 : *x*2 *x* 1 *x* 1

**Bài 13.** Thực hiện phép chia

a) 0, 5*x*6

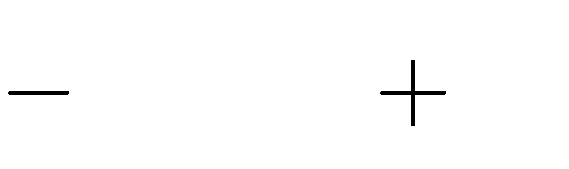


*x*4 *x*3

1, 5*x*2

2*x* 3 : 0, 5*x*2 1

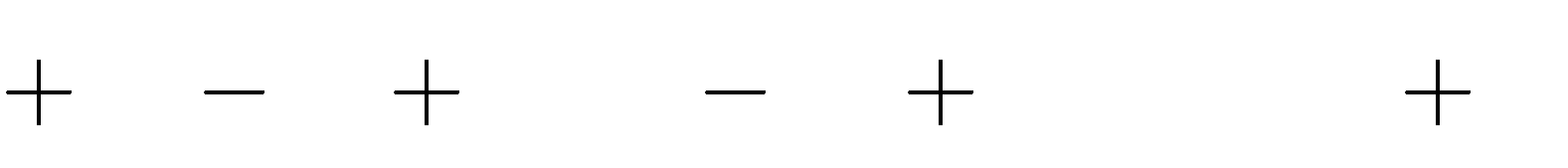
b) 9*x*2



4 : 3*x* 2

# Lời giải:

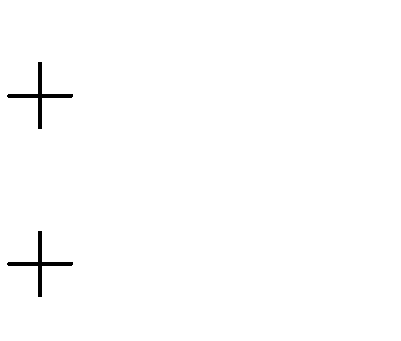
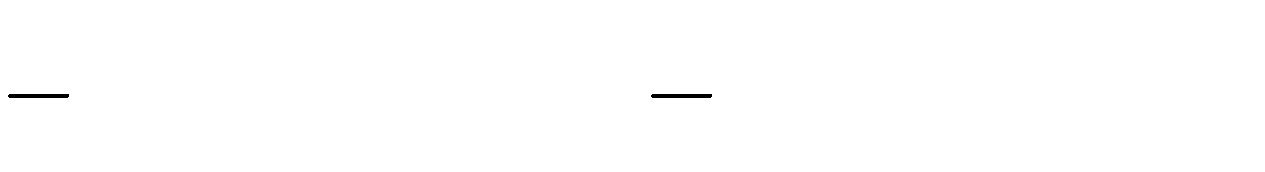
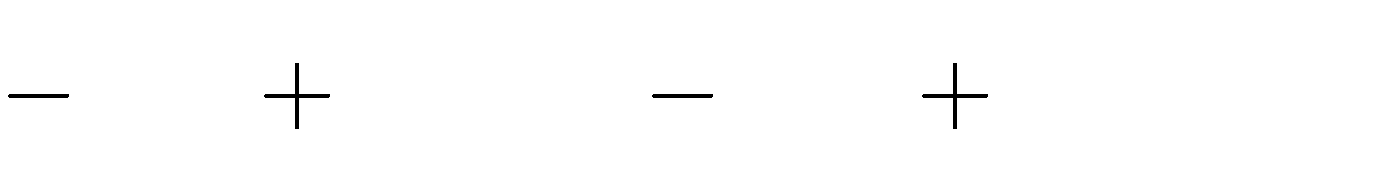
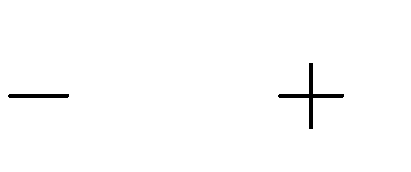
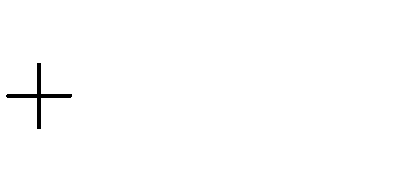
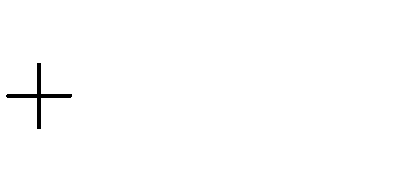
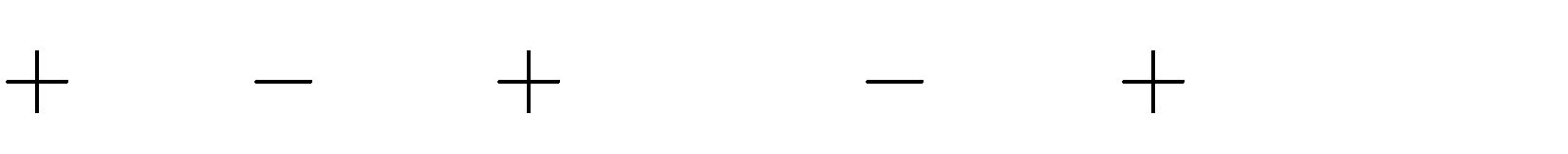
a) 0, 5*x*6



*x*4 *x*3

1, 5*x*2

2*x* 3 : 0, 5*x*2 1



0, 5*x*6

0, 5*x*6

*x*4

*x*4

*x*3

1, 5*x*2

2*x*

*x*3

*x*3

1, 5*x*2

2*x*

2*x*

3 0, 5*x*2

*x* 4

3

1

2*x*

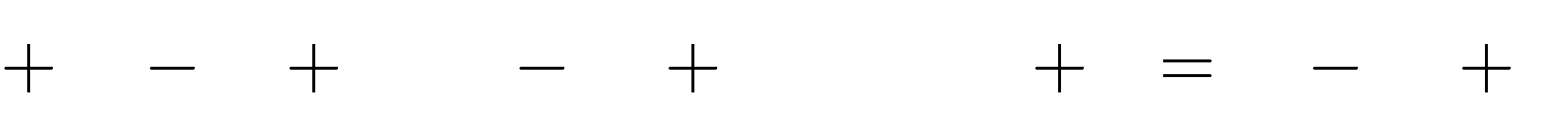
3

1, 5*x*2 3

1, 5*x*2 3

0

Vậy 0, 5*x*6



*x*4 *x*3

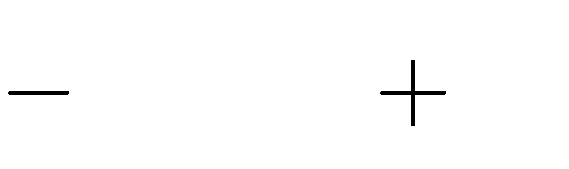
1, 5*x*2

2*x* 3 : 0, 5*x*2 1

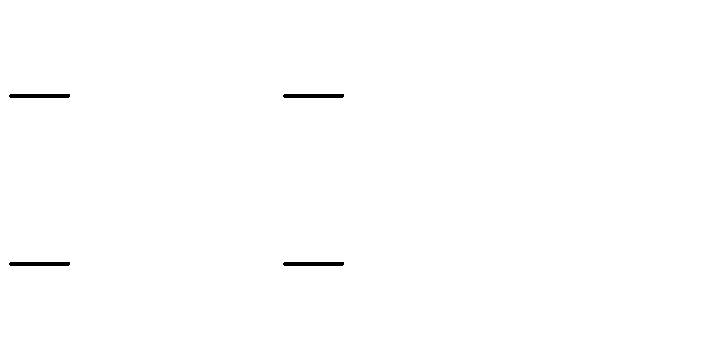
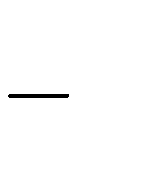
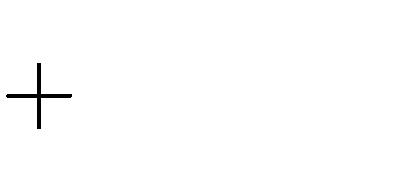
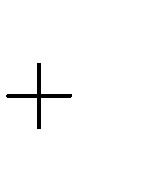
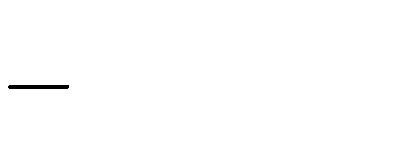
*x*4

2*x* 3

b) 9*x*2



4 : 3*x* 2



9*x*2

9*x*2

6*x* 6*x*

6*x*

4 3*x* 3*x*

4

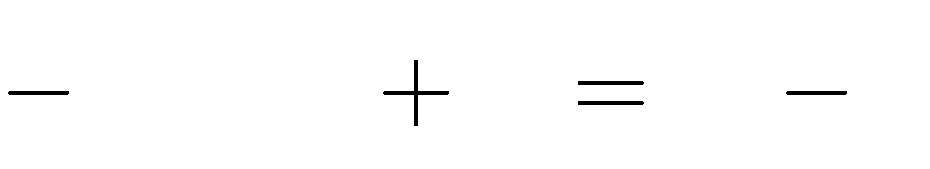
4

2

2

0

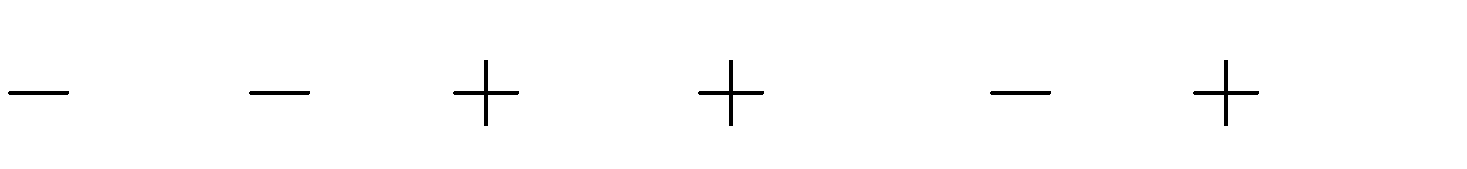
Vậy 9*x*2



4 : 3*x* 2 3*x* 2

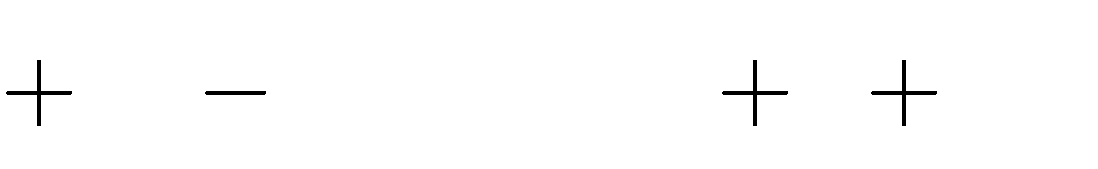
**Bài 14.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

1. 4*x*2



4*x*3 4*x* 3*x*4 1 : 1 4*x* 3*x*2

1. 9



*x*4

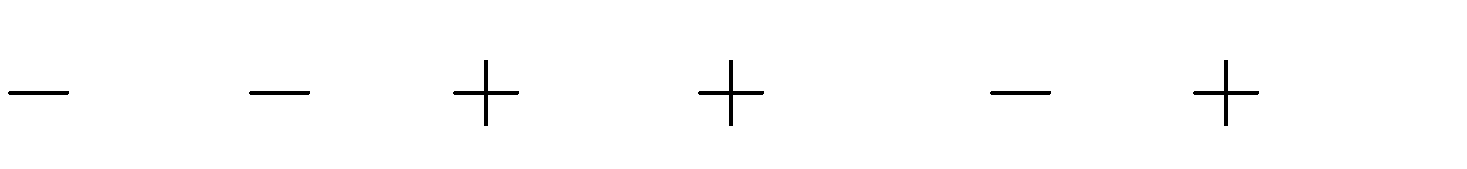
10*x*2 : 4*x*

3

*x*2

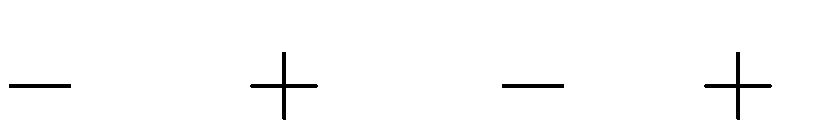
# Lời giải:

1. 4*x*2



4*x*3 4*x* 3*x*4 1 : 1 4*x* 3*x*2

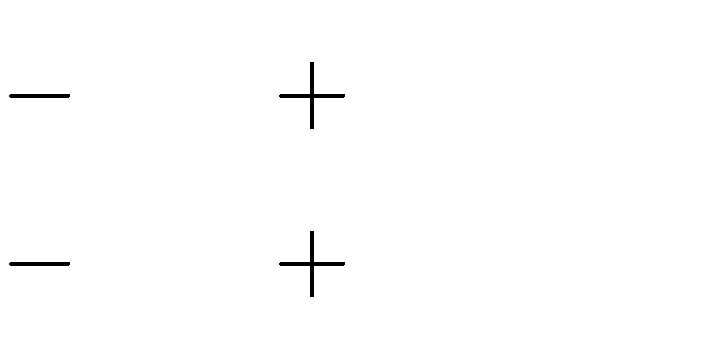
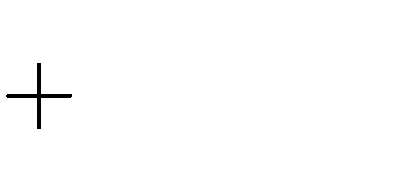
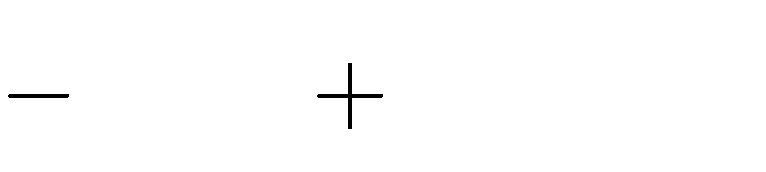
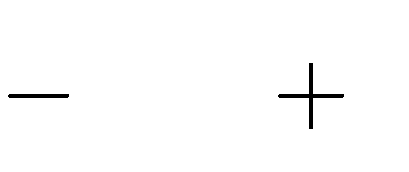
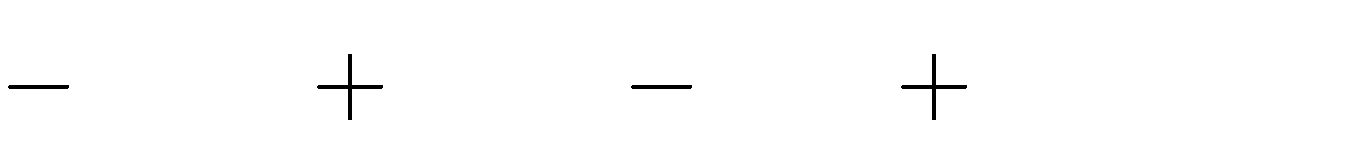
Sắp xếp đa thức theo lũy thừa giảm dần của biến:

3*x*4

4*x*3

4*x*2

4*x* 1; 3*x*2



3*x*4

3*x*4

4*x*3 4*x*2

4*x*

4*x*3

*x*2

3*x*2

3*x*2

4*x*

4*x*

1 3*x*2

*x*2

1

1

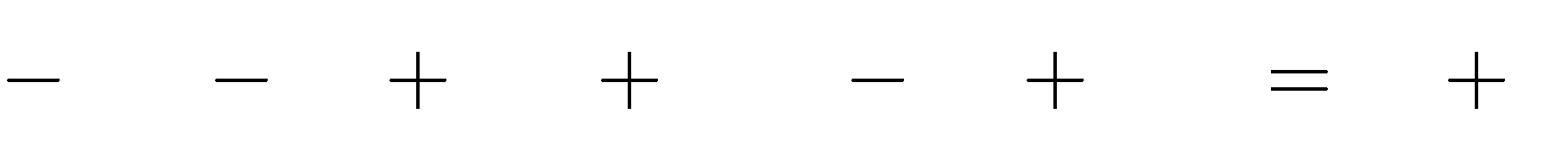
4*x*

1

1

0

Vậy 4*x*2

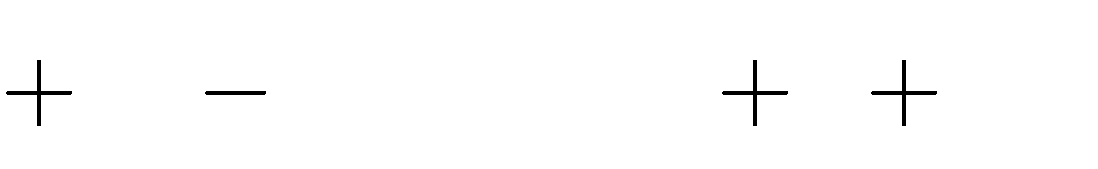


4*x*3 4*x* 3*x*4 1 : 1 4*x* 3*x*2

*x*2

1

1. 9



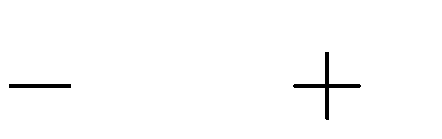
*x*4

10*x*2 : 4*x*

3

*x*2

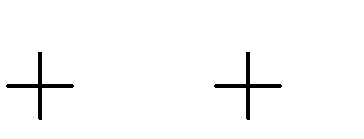
Sắp xếp đa thức theo lũy thừa giảm dần của biến:



*x*4

10*x*2

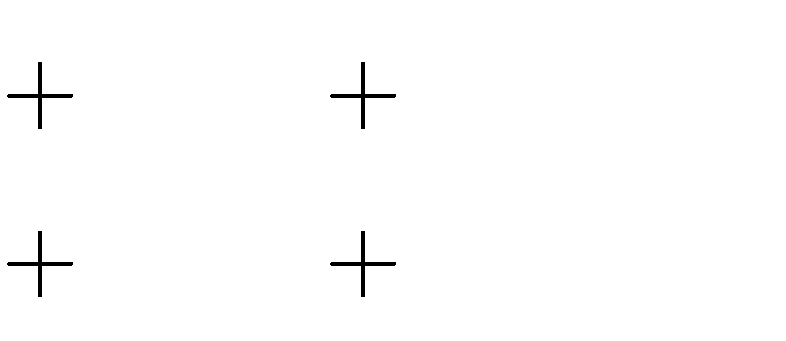
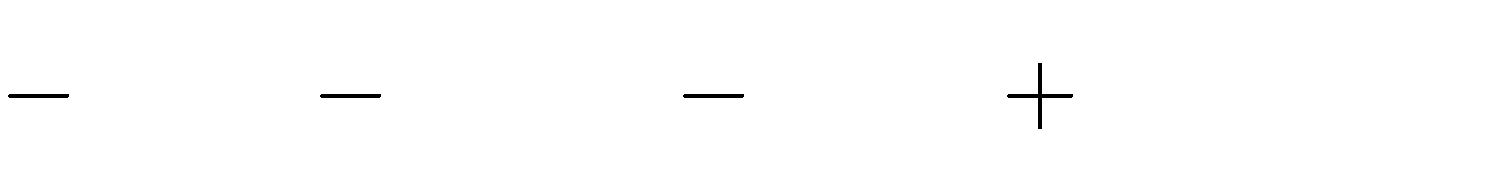
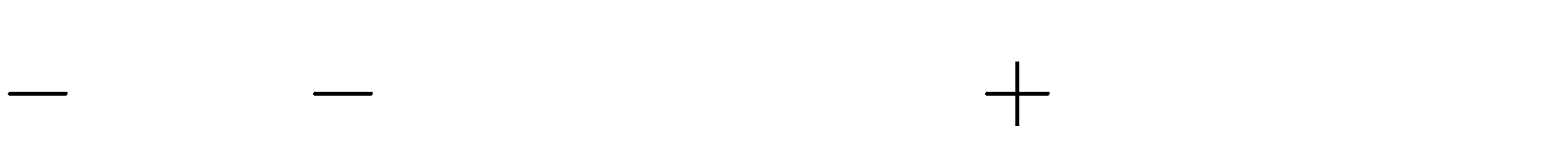
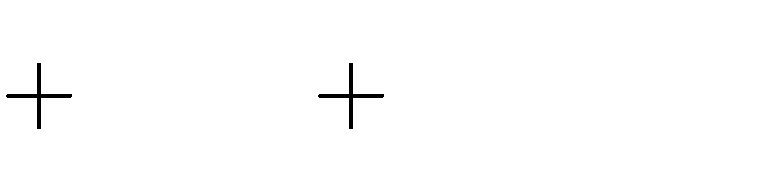
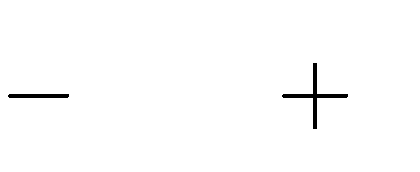
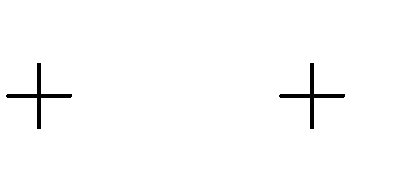
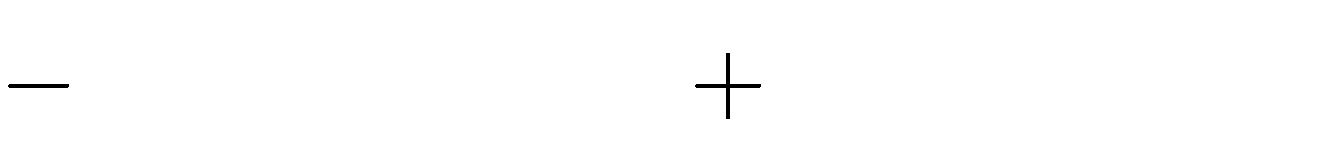
9 ; *x*2



4*x* 3

|  |  |  |  |
| --- | --- | --- | --- |
| *x*4  *x*4 4*x*3 | 10*x*2  3*x*2 |  | 9 |
| 4*x*3 | 13*x*2 |  | 9 |
| 4*x*3 | 16*x*2 | 12*x* | 9 |
|  | 3*x*2 | 12*x* | 9 |
|  | 3*x*2 | 12*x* | 9 |
|  |  |  | 0 |

Vậy 9



*x*2

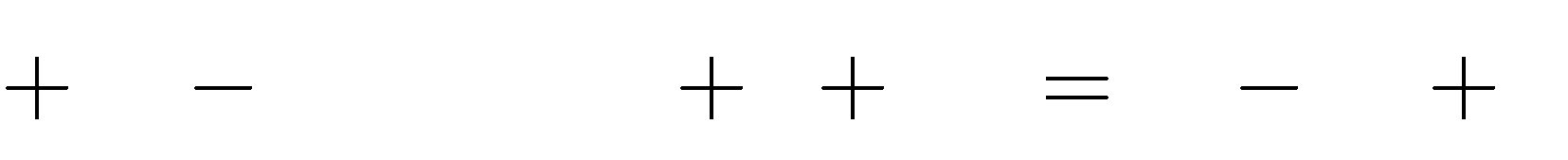
*x*2

4*x*

4*x*

3

3



*x*4

10*x*2 : 4*x*

3

*x*2

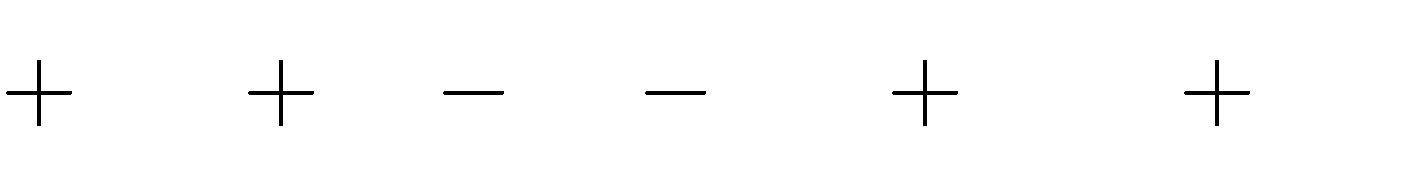
*x*2

4*x*

3

**Bài 15.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

1. 3*x*2



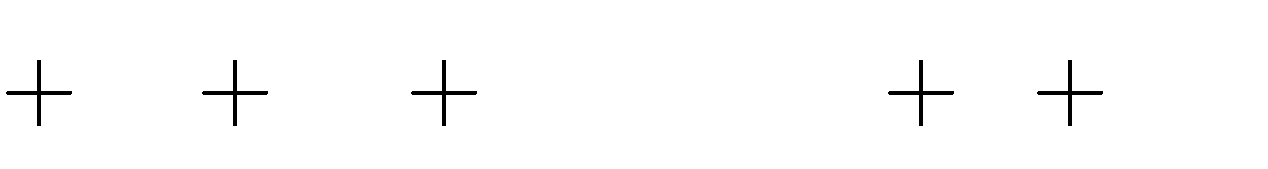
3*x*5

*x*3

4*x* 4*x*4 1 : 1

*x*3

1. 3



*x*3

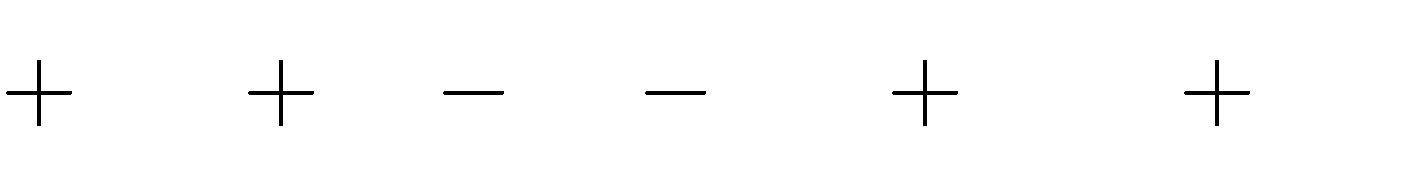
7*x* 5*x*2 : 4*x*

3

*x*2

# Lời giải:

1. 3*x*2

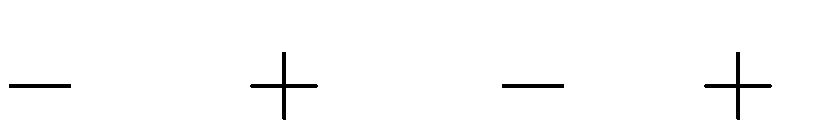


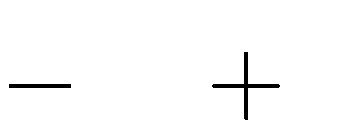
3*x*5

*x*3

4*x* 4*x*4 1 : 1

*x*3

Sắp xếp đa thức theo lũy thừa giảm dần của biến:



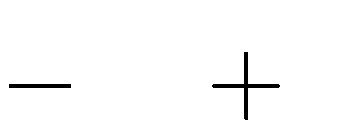
4*x* 1

3*x*4

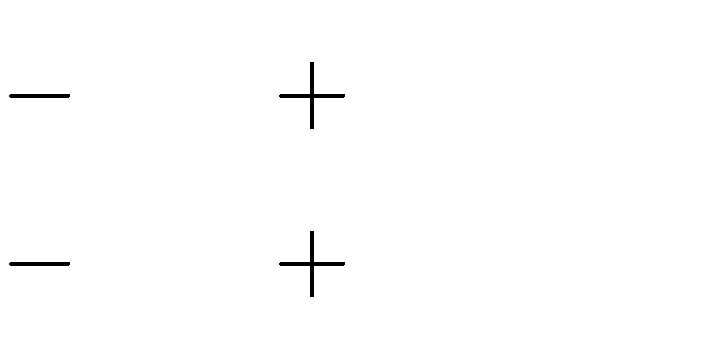
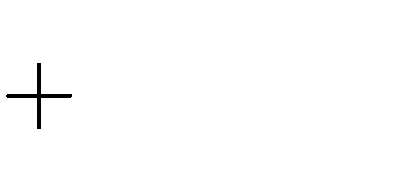
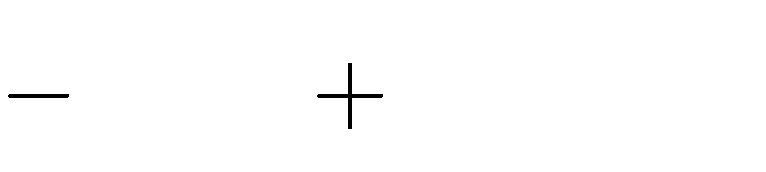
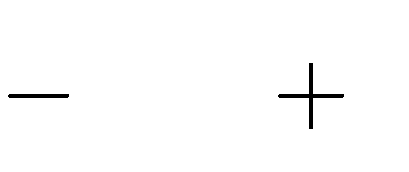
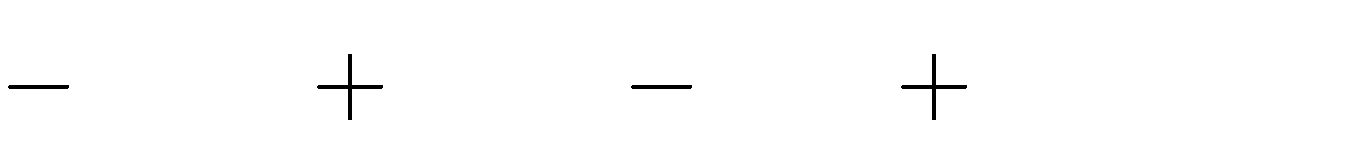
4*x*3

4*x*2

4*x* 1; 3*x*2



4*x* 1



3*x*4

3*x*4

4*x*3 4*x*2

4*x*

4*x*3

*x*2

3*x*2

3*x*2

4*x*

4*x*

1 3*x*2

*x*2

1

1

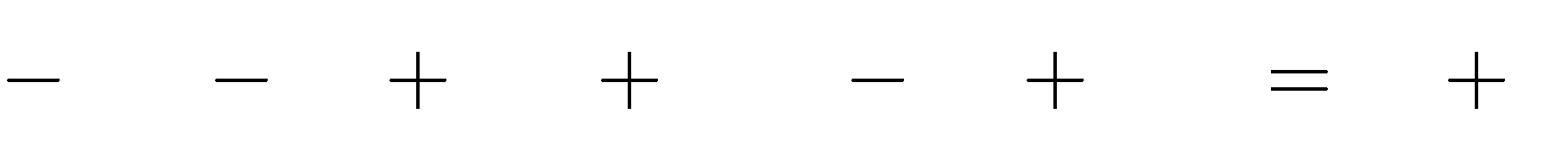
4*x*

1

1

0

Vậy 4*x*2

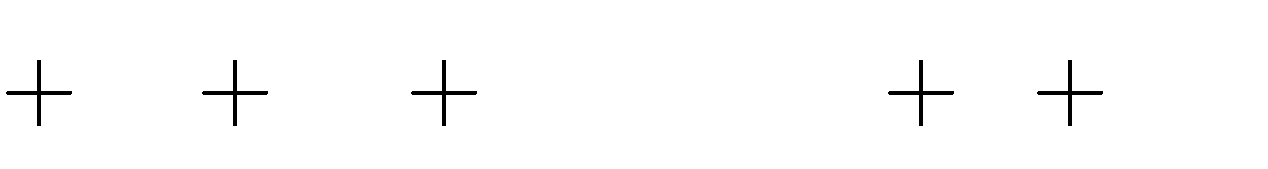


4*x*3 4*x* 3*x*4 1 : 1 4*x* 3*x*2

*x*2

1

1. 3



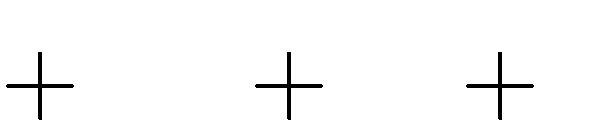
*x*3

7*x* 5*x*2 : 4*x*

3

*x*2

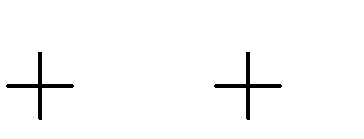
Sắp xếp đa thức theo lũy thừa giảm dần của biến:



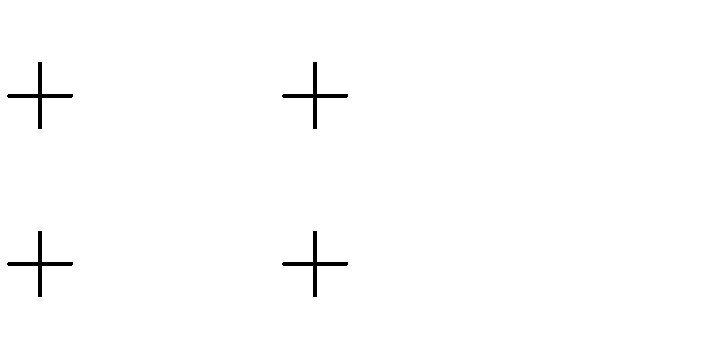
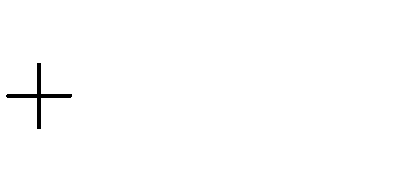
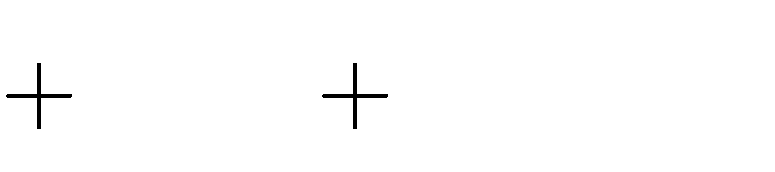
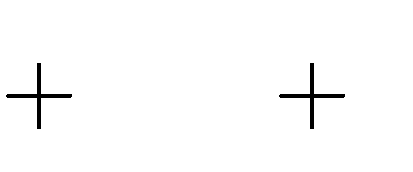
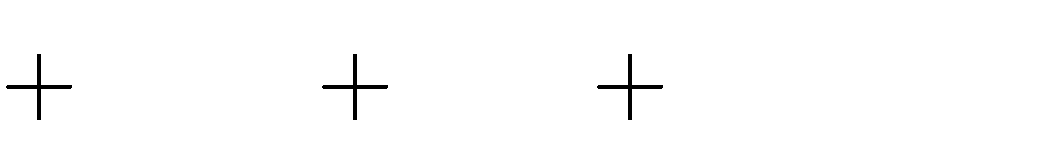
*x*3

5*x*2

7*x* 3 ; *x*2



4*x* 3



*x*3

*x*3

5*x*2

4*x*2

*x*2

*x*2

7*x* 3*x* 4*x*

4*x*

3

*x*2

*x*

4*x*

1

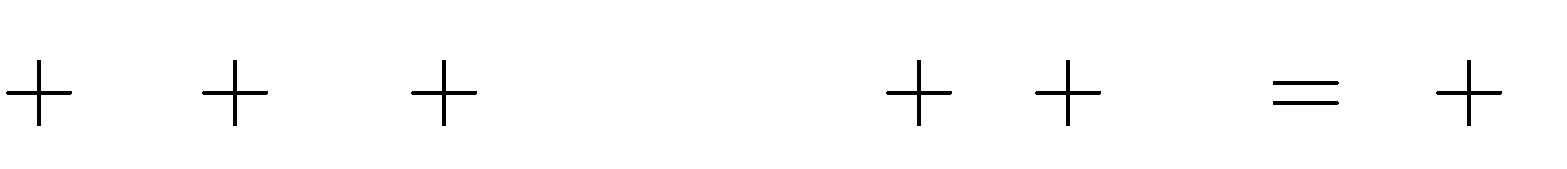
3

3

3

0

Vậy 3



*x*3

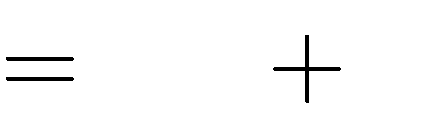
7*x* 5*x*2 : 4*x*

3

*x*2

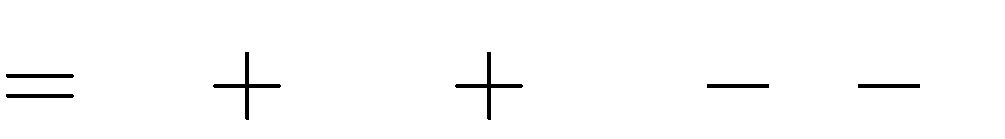
*x* 1

**Bài 16.** Tìm thương *Q* và dư *R* sao cho *A* biết



*B*.*Q R*

1. *A*

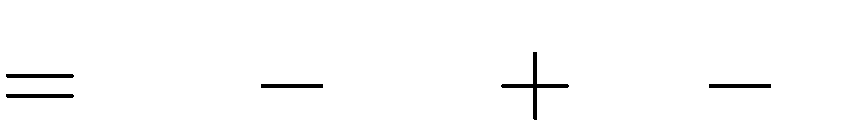


*x*4

3*x*3

2*x*2 *x* 4

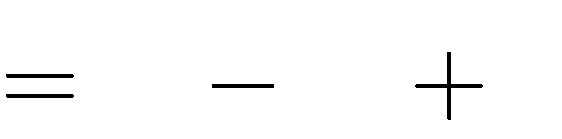
1. *A*



2*x*3 3*x*2 6*x* 4

và *B*

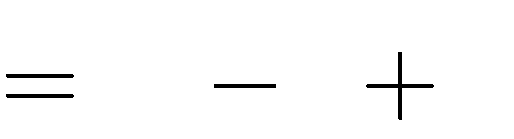
và *B*



*x*2

2*x*

3

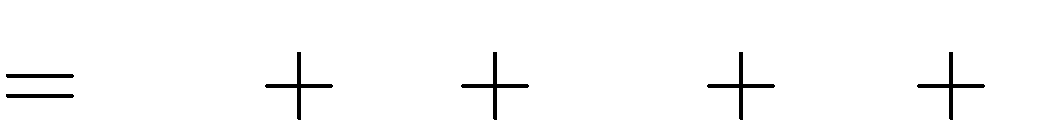


*x*2

*x*

3

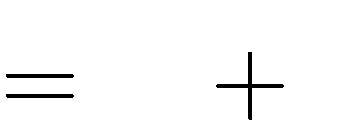
1. *A* và *B*



2*x*4

*x*3

3*x*2 4*x* 9

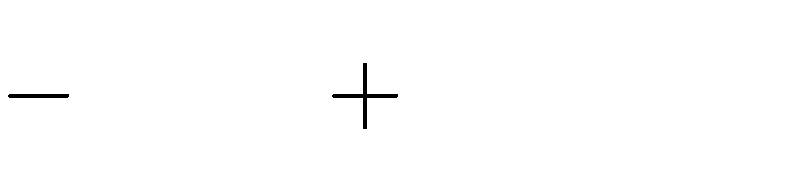
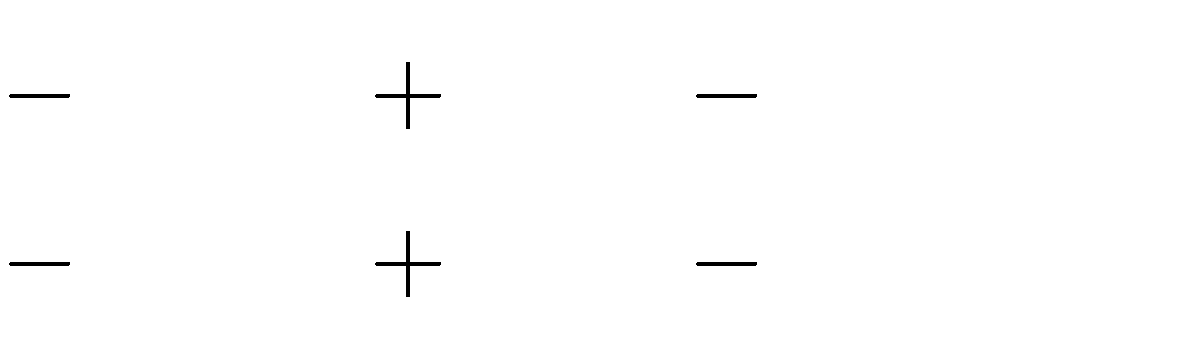
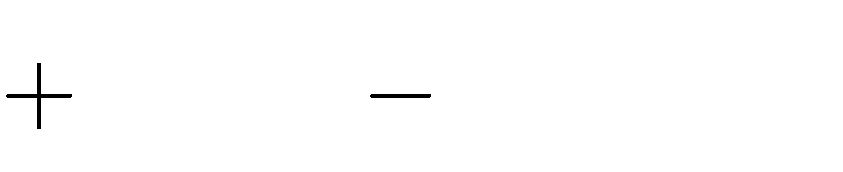
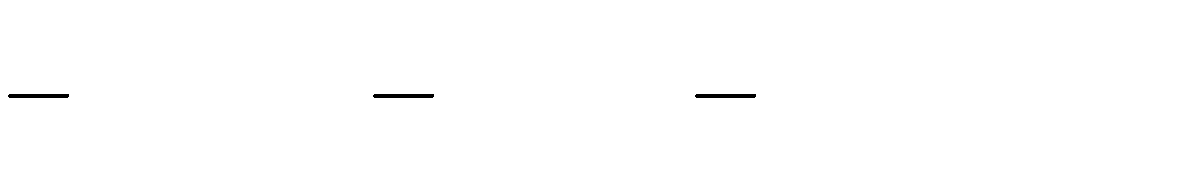
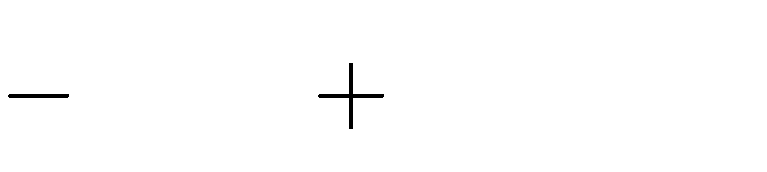
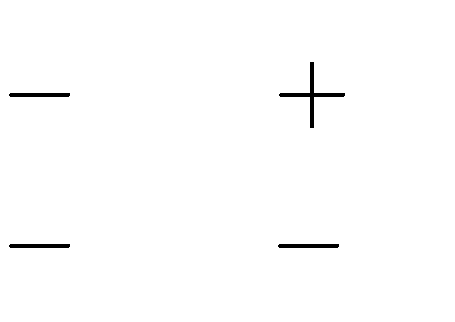
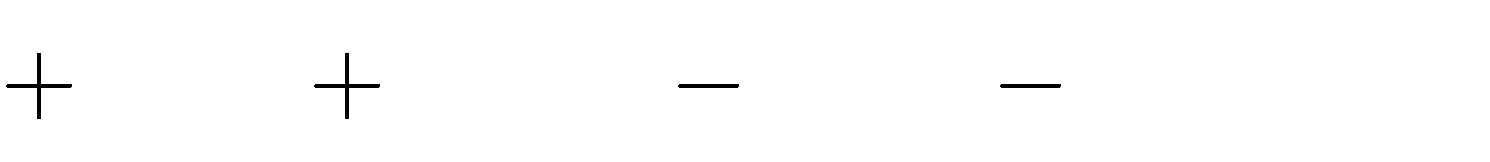


*x*2

1

# Lời giải:

a)



*x*4

*x*4

3*x*3 2*x*3

5*x*3

2*x*2

3*x*2

*x*2

*x*

4 *x*2

*x*2

2*x*

5*x*

3

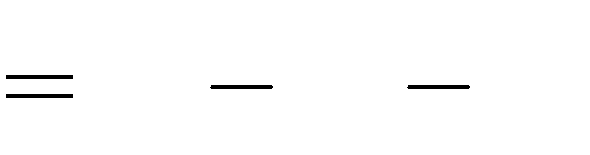
11

*x*

4

|  |  |  |  |
| --- | --- | --- | --- |
| 5*x*3 | 10*x*2 | 15*x* |  |
|  | 11*x*2 | 14*x* | 4 |
|  | 11*x*2 | 22*x* | 33 |
|  |  | 8*x* | 29 |

Vậy thương *Q*

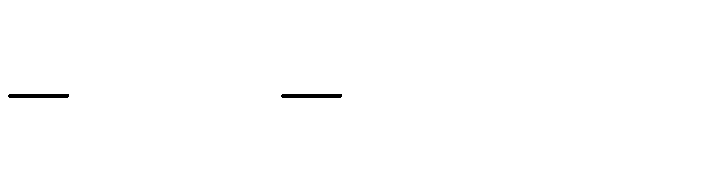
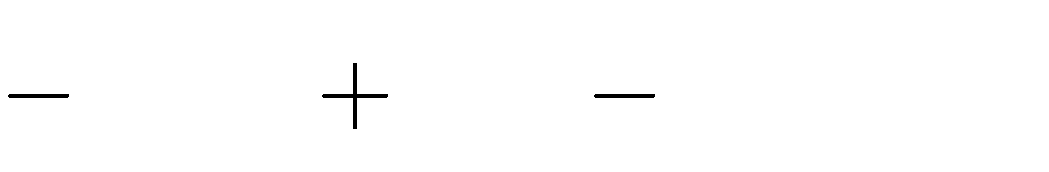
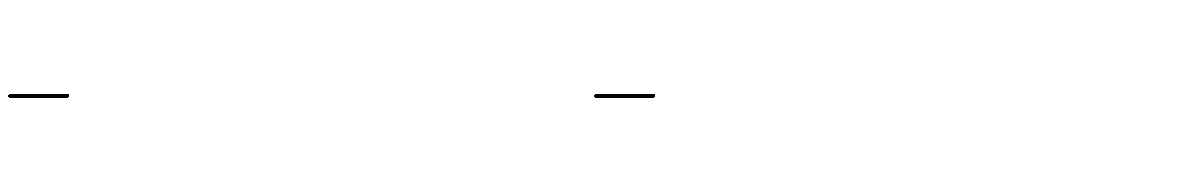
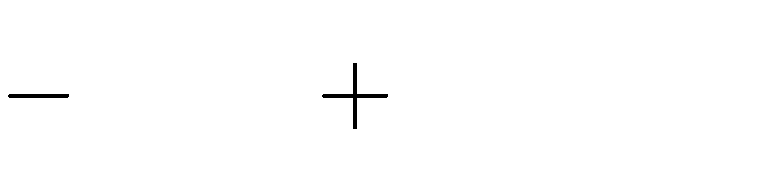
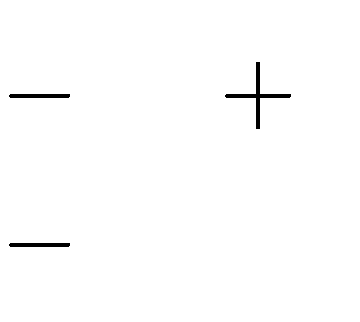
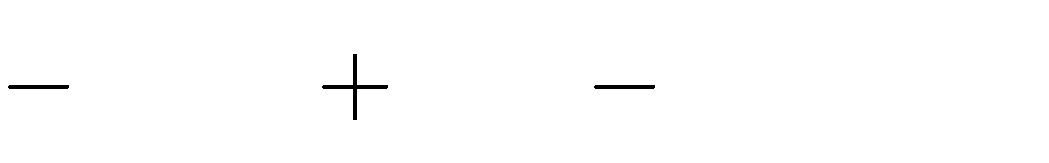


*x*2

5*x* 11

b)

và dư *R*



2*x*3

2*x*3

3*x*2

2*x*2

*x*2

*x*2

6*x*

6*x*

4

*x*2

2*x*

*x*

1

3

*x*

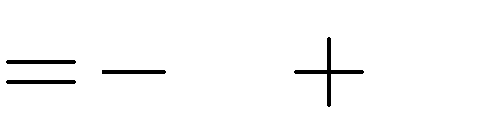
*x*

4

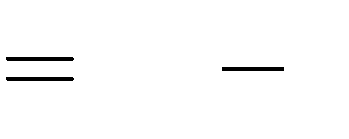
3

1

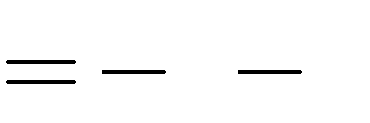
Vậy thương *Q*



8*x* 29



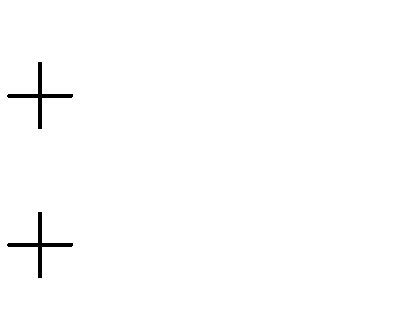
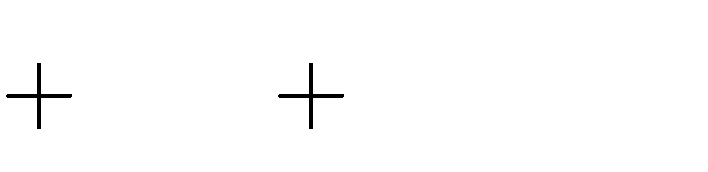
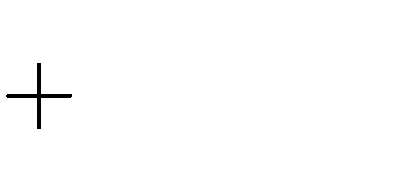
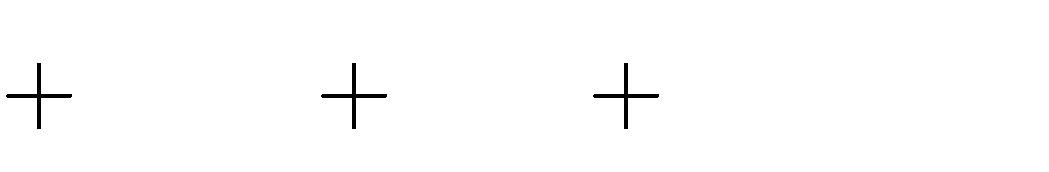
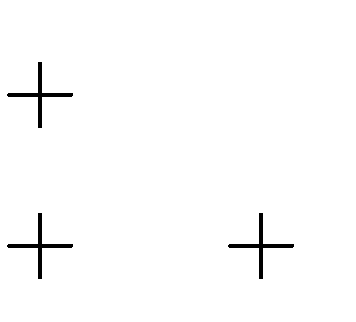
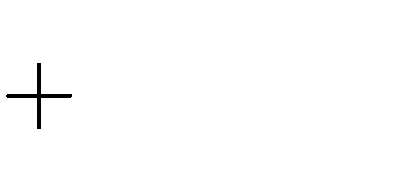
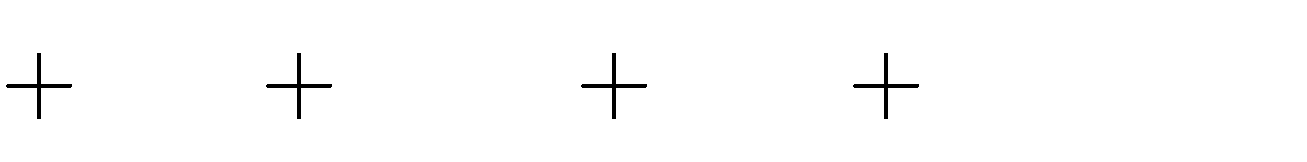
2*x* 1



*x* 1

c)

và dư *R*



2*x*4

2*x*4

*x*3

*x*3

*x*3

3*x*2

2*x*2

*x*2

4*x*

9 *x*2

2*x*2

1

*x*

1

4*x x*

3*x*

9

*x*2

*x*2

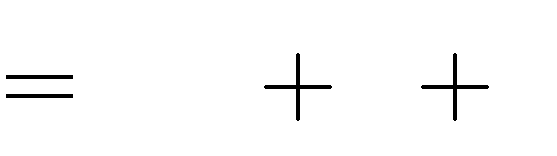
3*x*

9

1

8

Vậy thương *Q*

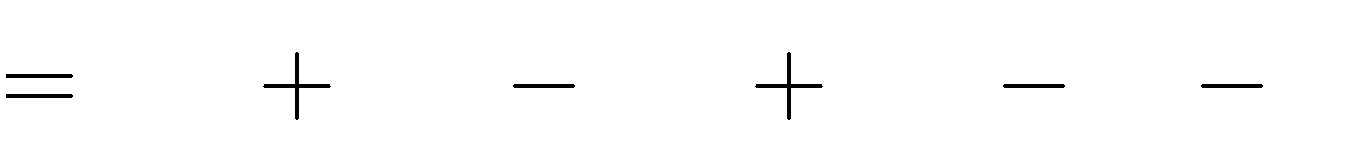


2*x*2 *x* 1

**Bài 17.** Cho hai đa thức

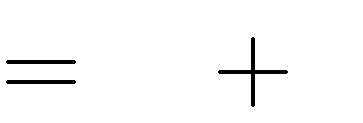
và dư *R*

*A x*

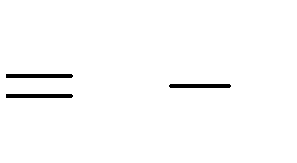


4*x*4 6*x*2 7*x*3 7*x*3 5*x* 6

và đa thức



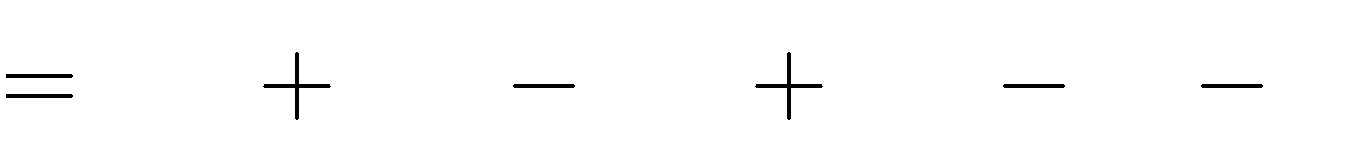
3*x* 8

1. *x x*
2. Tìm

thương và đa thức dư của phép chia

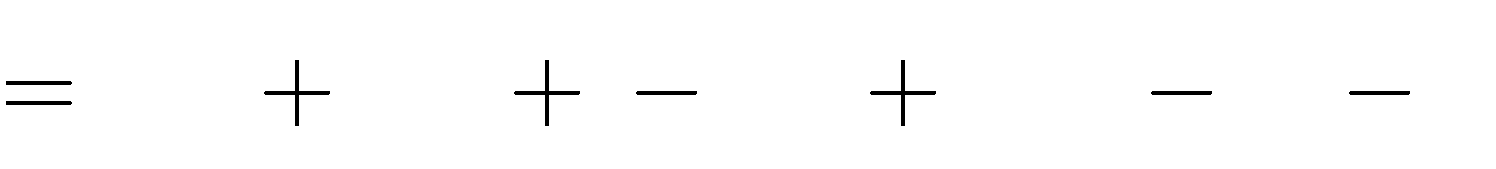
# Lời giải:

*A x*



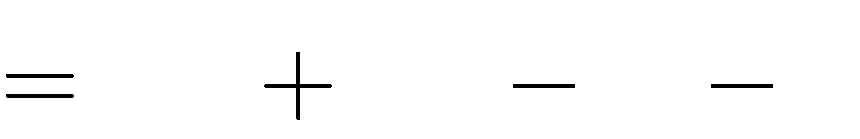
4*x*4 6*x*2 7*x*3 7*x*3 5*x* 6

*A x* : *B x*



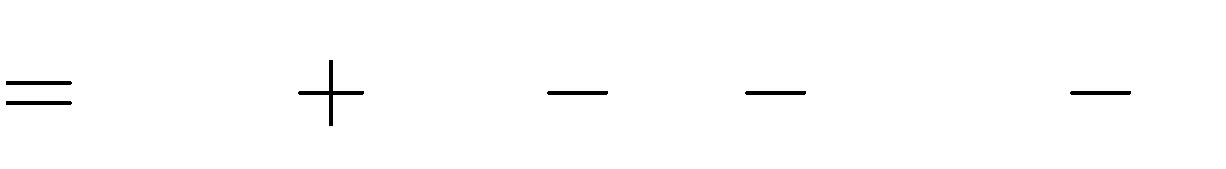
4*x*4 6*x*2

7*x*3 7*x*3 5*x* 6

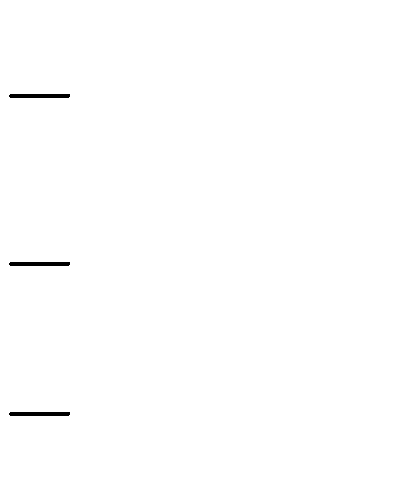
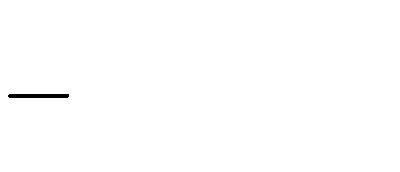
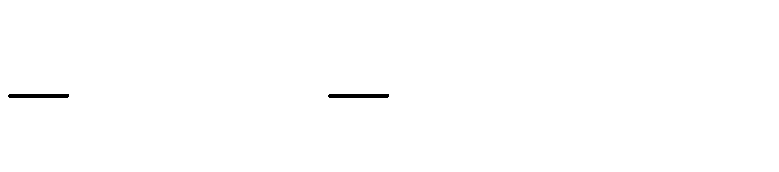
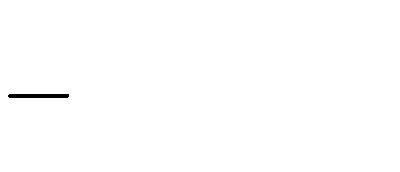
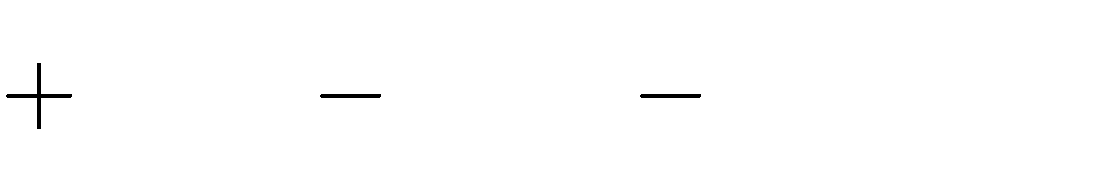
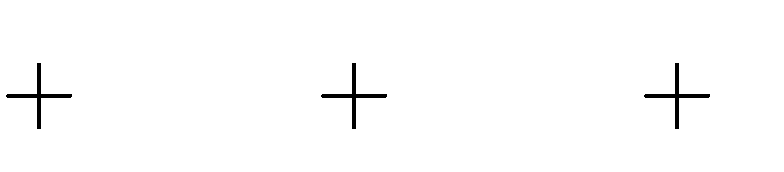
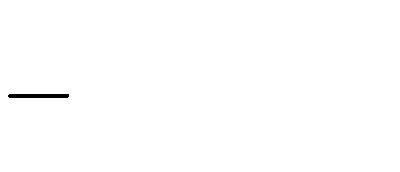
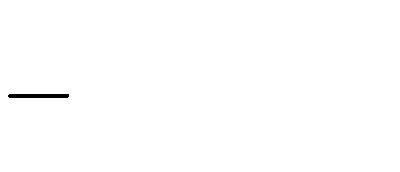
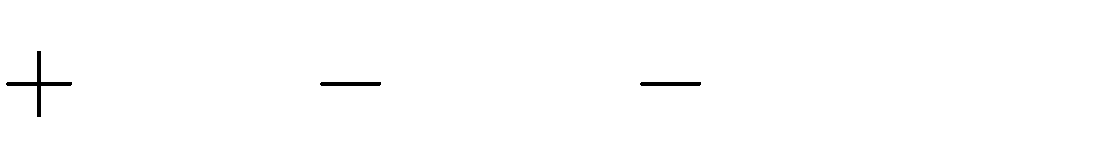


4*x*4 6*x*2 5*x* 6

*A x* : *B x*



4*x*4 6*x*2 5*x* 6 : *x* 1



4*x*4

4*x*4

6*x*2

5*x*

6

4*x*3 4*x*3

4*x*3

*x*

4*x*3

1

4*x*2

10*x*

5

6*x*2

4*x*2

10*x*2

10*x*2

5*x*

6

5*x* 10*x*

5*x*

5*x*

6

6

5

1

Vậy thương của phép chia

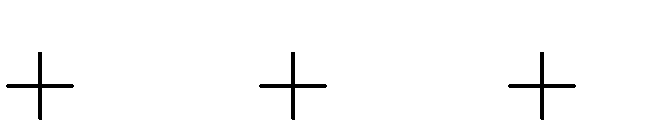
*A x* : *B x* là

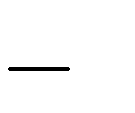
4*x*3

4*x*2

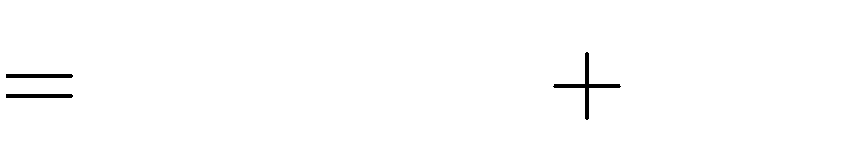
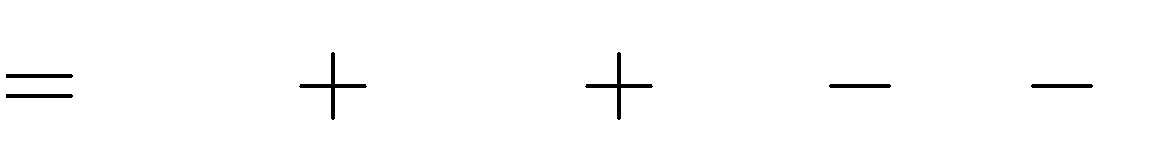
10*x*

5, đa thức dư là

**Bài 18.** Tìm thương *Q x* và dư *R x* trong phép chia cho



1



*F x* 15*x*4

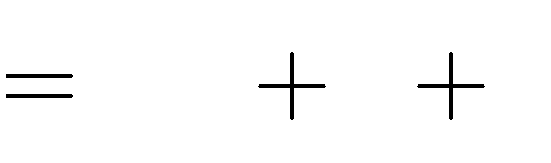
*G x* .*Q x*

19*x*3

*R x*

8*x*2 2*x* 3

*G x*



3*x*2 *x* 1

# Lời giải:

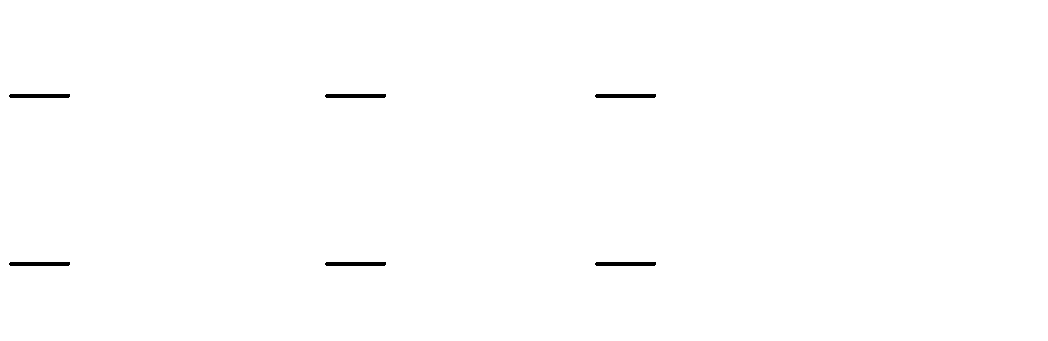
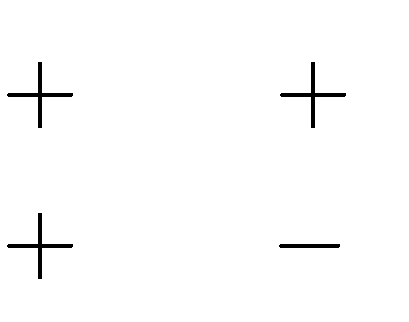
rồi biểu diễn *F x* dưới dạng *F x*

2*x*

3*x*

1

2



15*x*4 19*x*3

15*x*4 10*x*3

9*x*3

9*x*3

8*x*2

5*x*2

3*x*2

6*x*2

3*x*2

3*x*2

2*x*

3 3*x*2

5*x*2

3

2*x*

3*x*

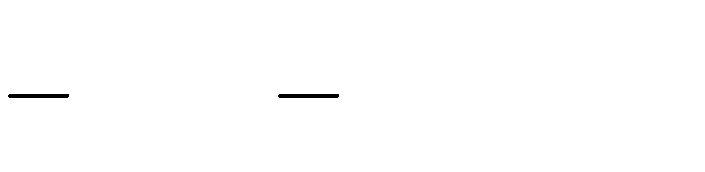
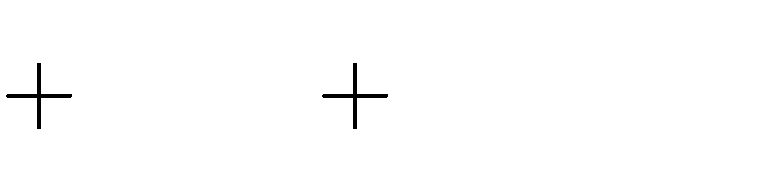
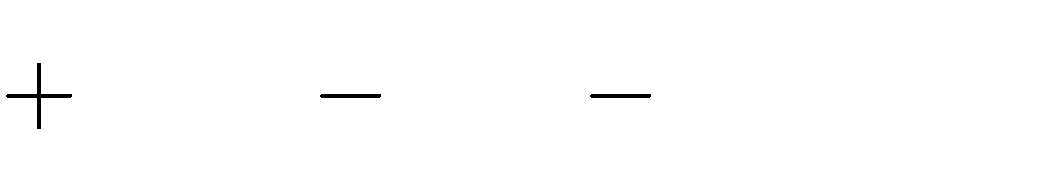
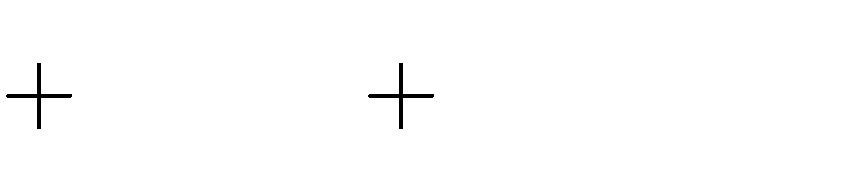
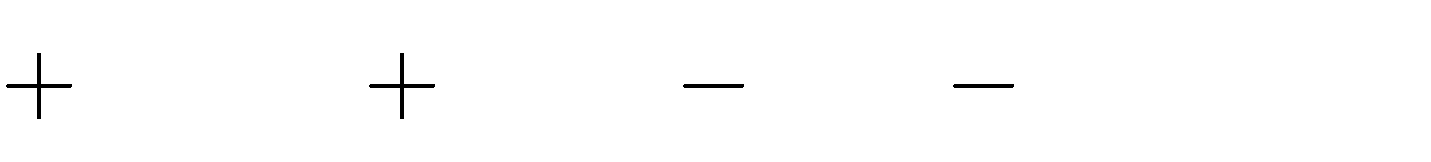
1

1

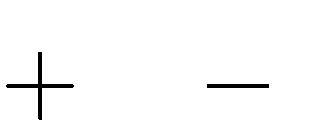
2*x*

3*x* 5*x*

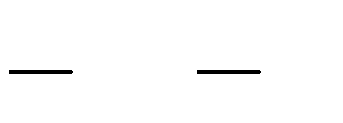
3



Vậy thương *Q x* trong phép chia *F x* cho *G x* là 5*x*2 và dư *R x* là

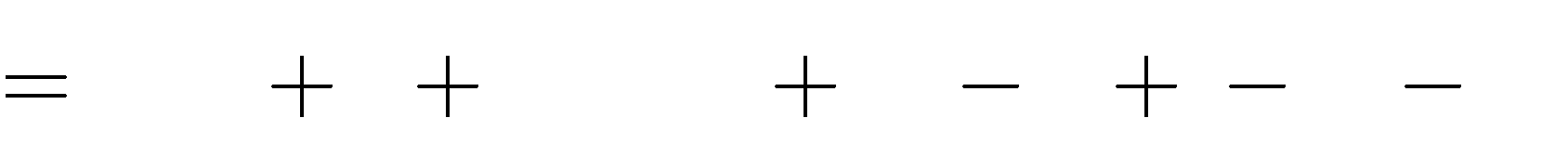
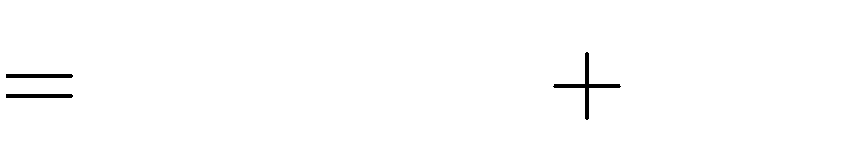


3*x* 1



3*x* 2

*F x*



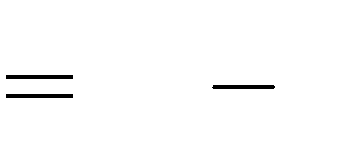
*G x* .*Q x R x* 3*x*2 *x* 1 . 5*x*2 3*x* 1

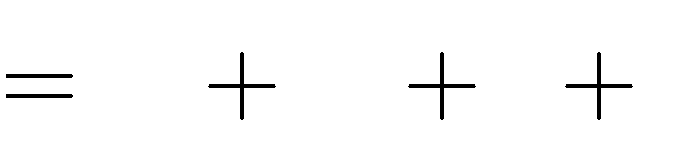
3*x* 2

**Bài 19.** Cho đa thức *P x*

và *Q*(*x*)

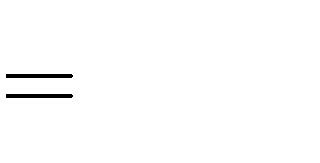
*x*4 1 . Tìm đa thức *A x* sao cho

*P x* .*A x*



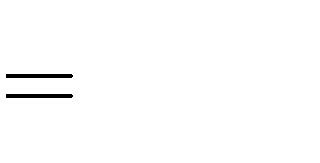
*x*3 *x*2

*x* 1



*Q x*

# Lời giải:



*Q x*

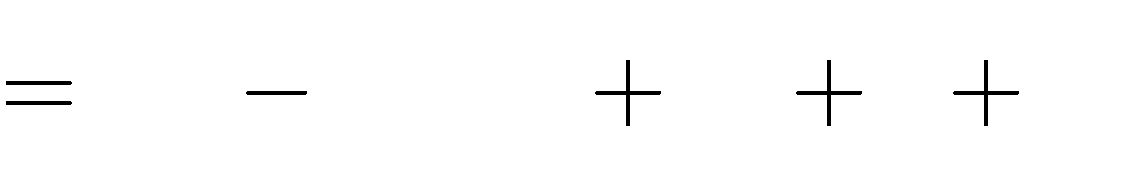
Vì *P x*

.*A x*

nên

*A x P x*

: *Q x*



*x*4

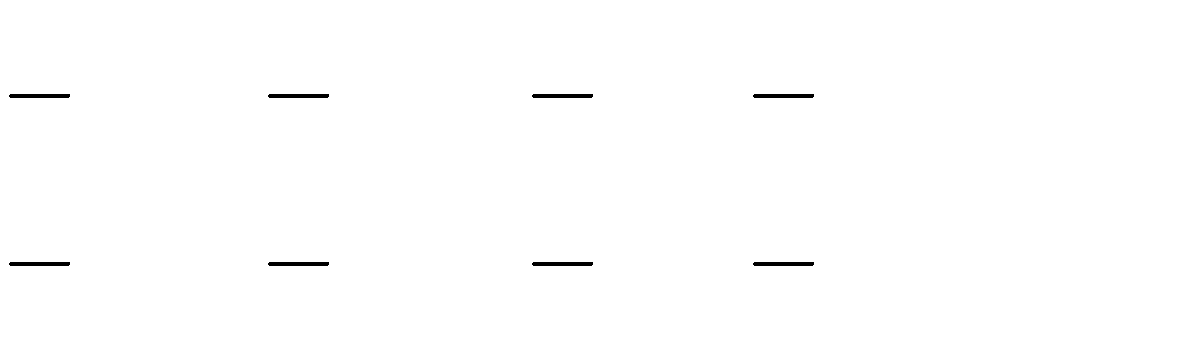
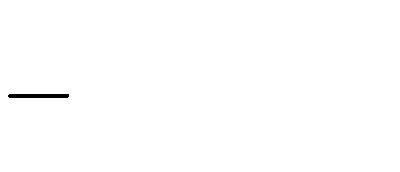
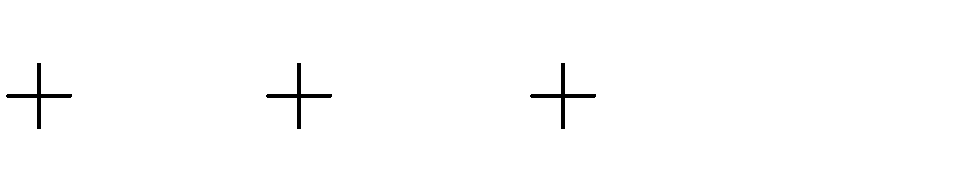
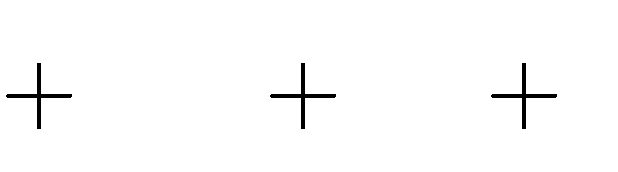
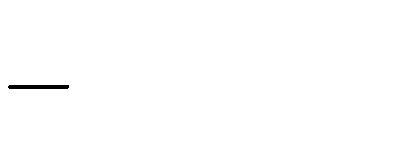
1 : *x*3

*x*2

*x* 1

|  |  |  |
| --- | --- | --- |
| *x*4  *x*4 | *x*3 | 1  *x*2 *x* |
|  | *x*3  *x*3 | *x*2 *x* 1  *x*2 *x* 1 |

Vậy *A x*



*x*3

*x*

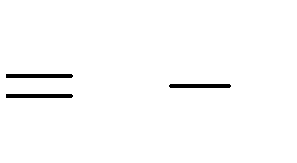
*x*2

1

*x*

1

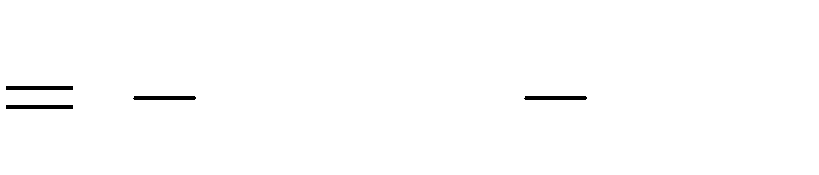
0



*x* 1

**Bài 20.** Thực hiện phép tính

1. *A*

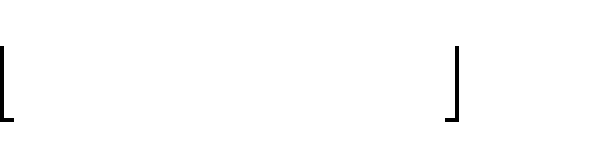
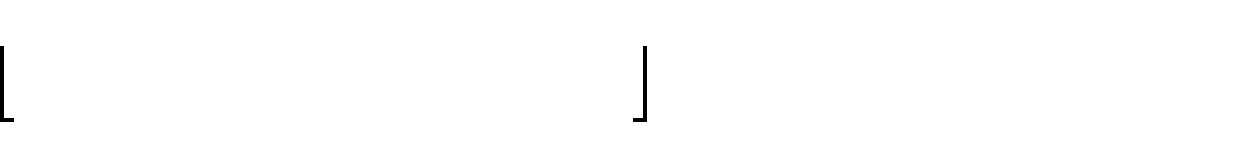
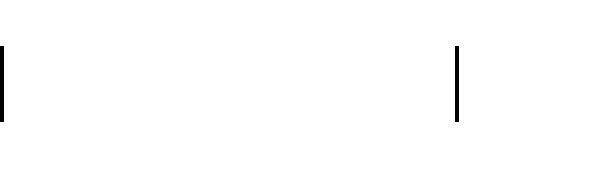
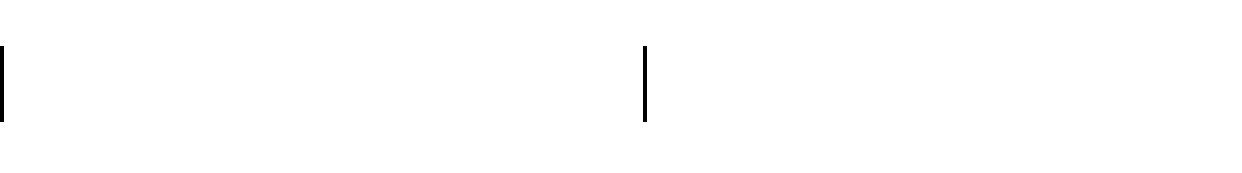
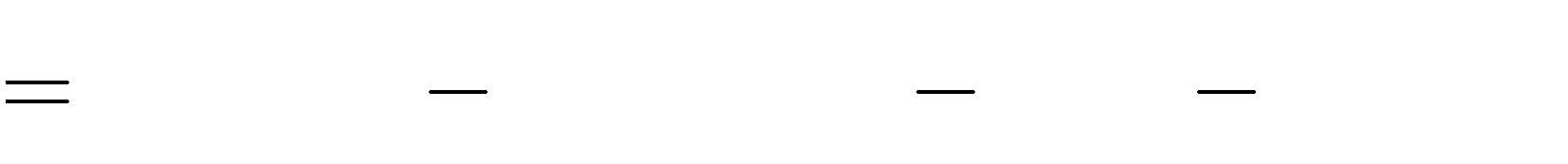
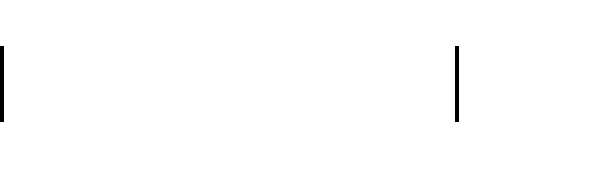
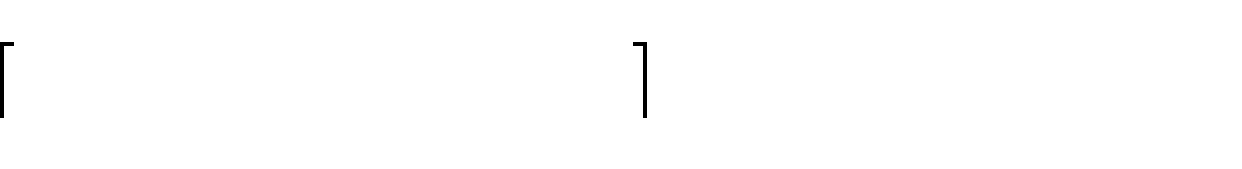
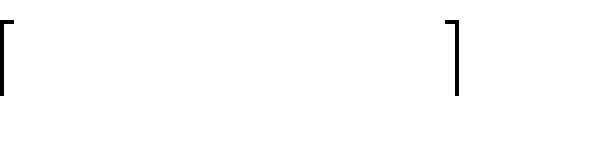


15*x*4 :

3*x*2

2

1. *B*



75 *x*2

2

45*x*4 : 3*x*2

5

2

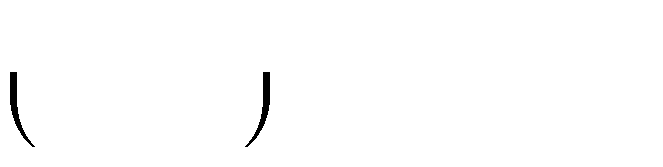
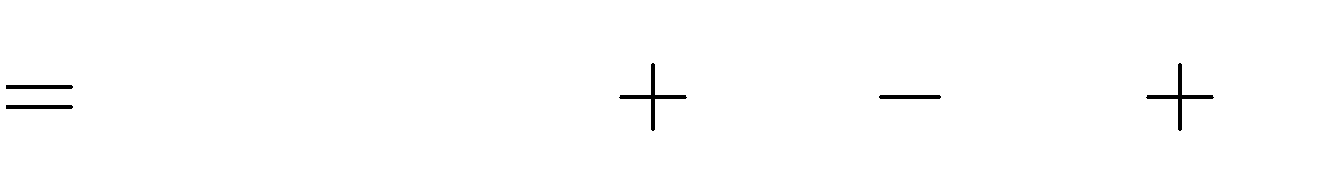
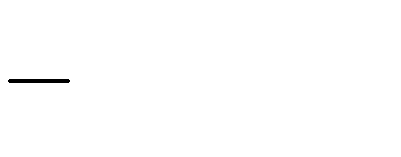
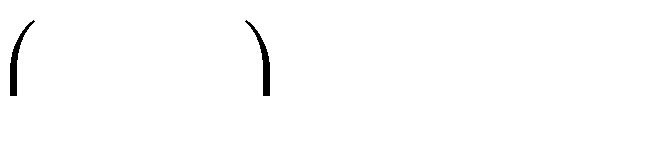
*x*2

2*x*2 :

1

2

1. *C*



2 *y*3 :

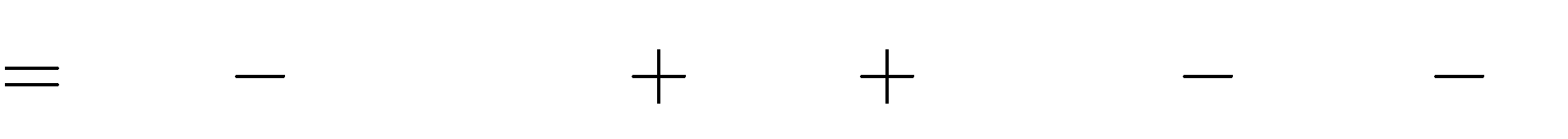
3

1 *y*

3

2 *y* 1 *y* 1

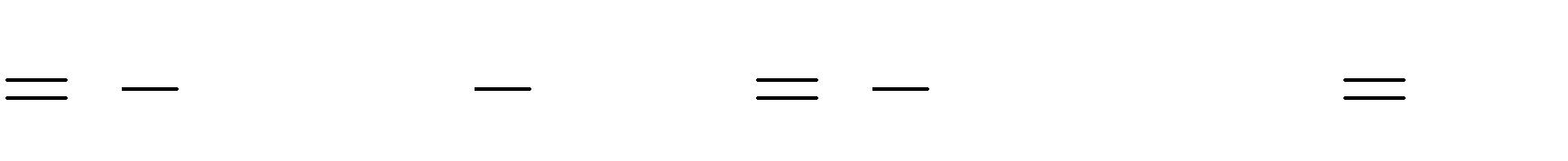
1. *D*



5*x*3 4*x*2 : 2*x*2 3*x*4 6*x* : 3*x x*. *x*2 1

# Lời giải:

1. *A*



15*x*4 :

3*x*2

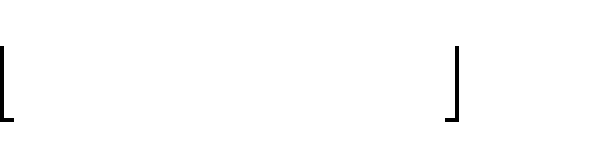
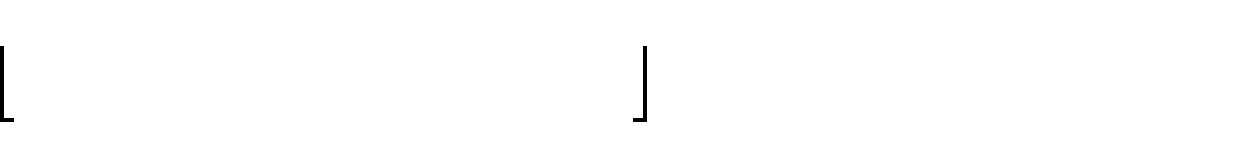
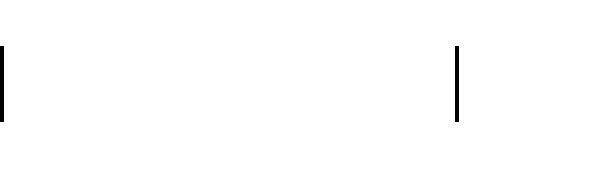
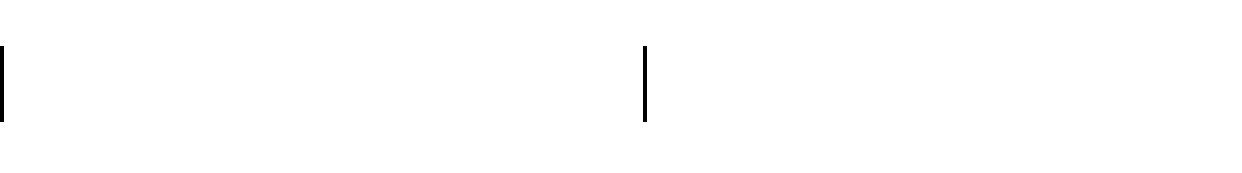
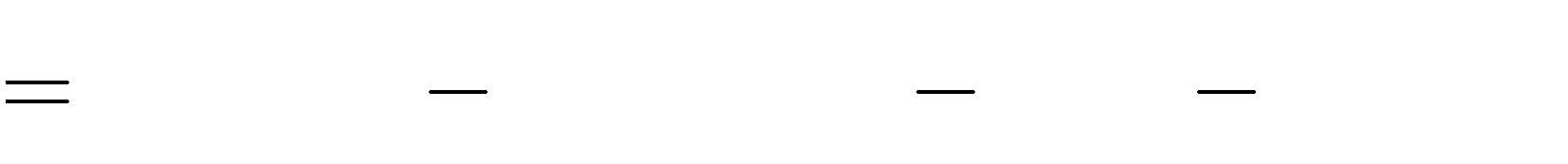
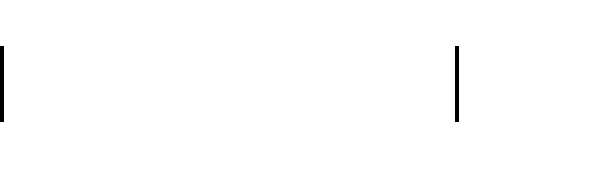
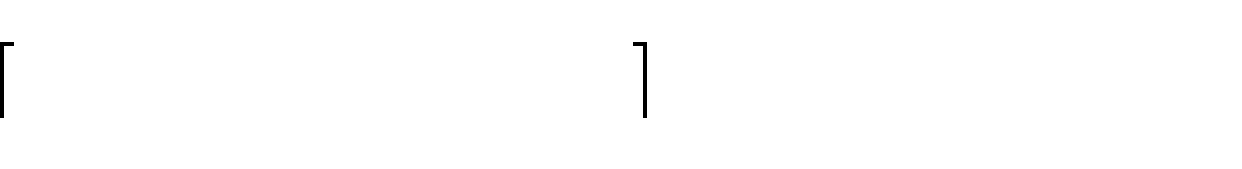
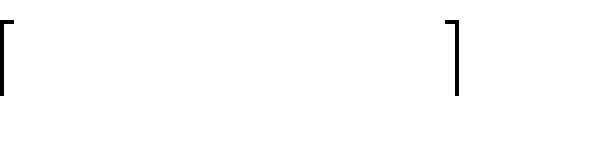
2

15*x*4 : 9*x*4

5

3

1. *B*



75 *x*2

2

45*x*4 : 3*x*2

5

2

*x*2

2*x*2 :

1

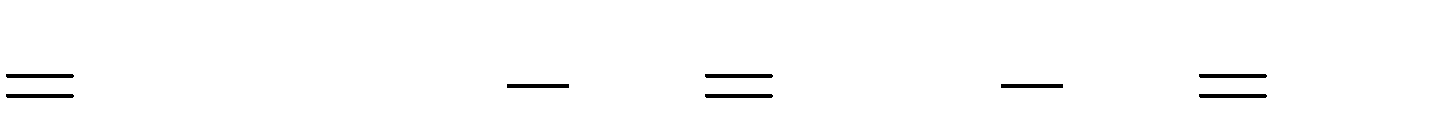
2



75*x*4 45*x*4 : 3*x*2

1 *x*2 : 1

2 2



30*x*4 : 3*x*2

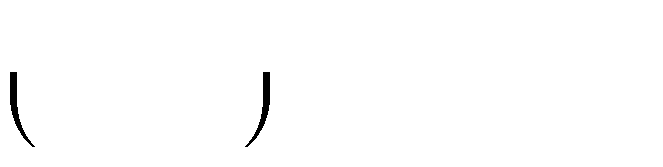
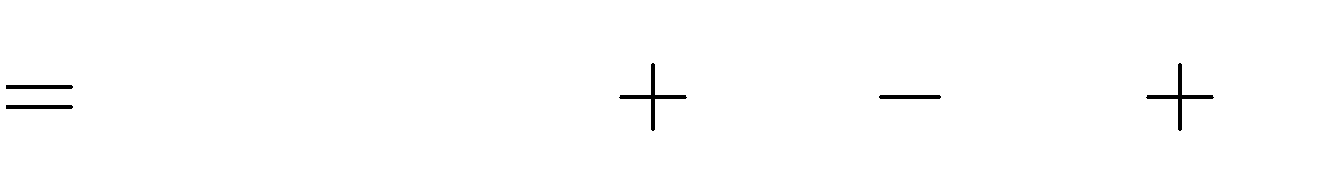
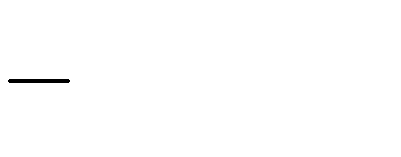
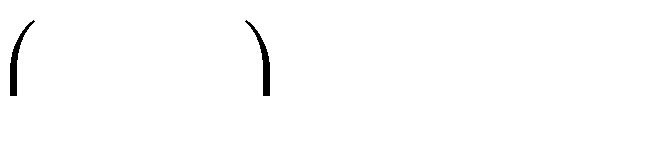
*x*2

10*x*2

*x*2

9*x*2

1. *C*



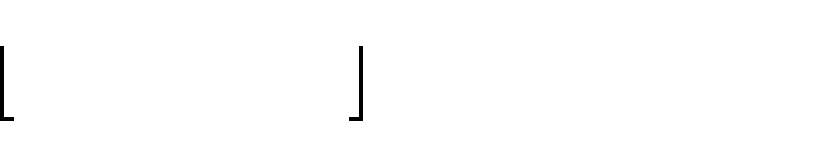
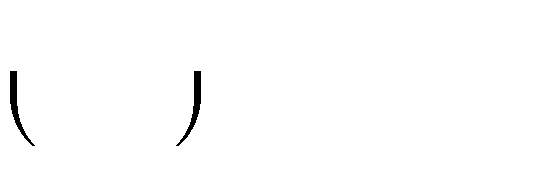
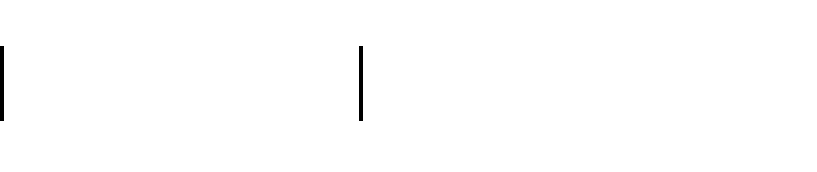
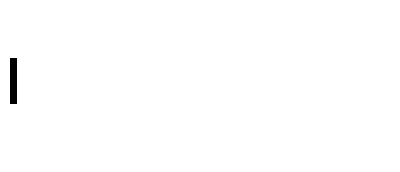
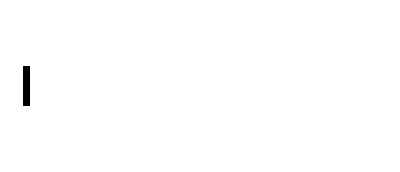
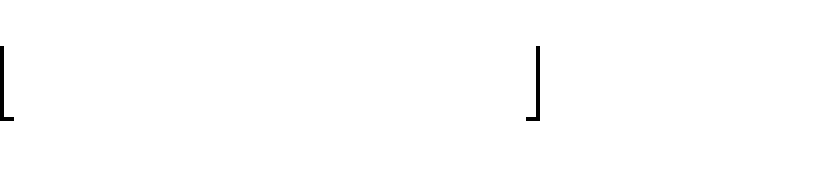
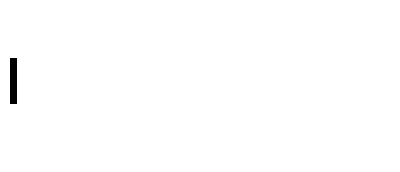
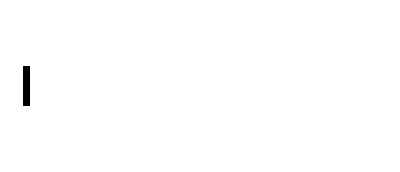
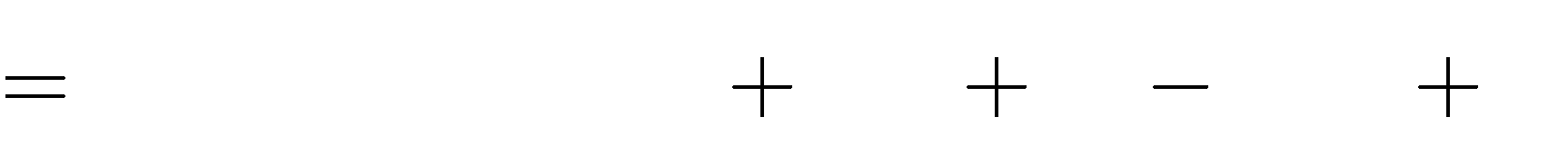
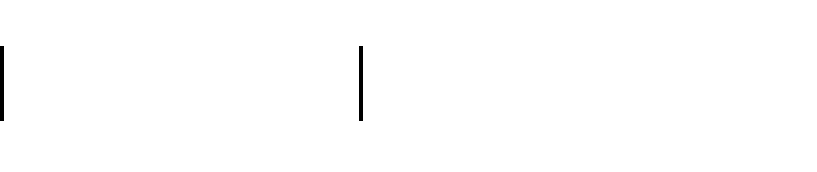
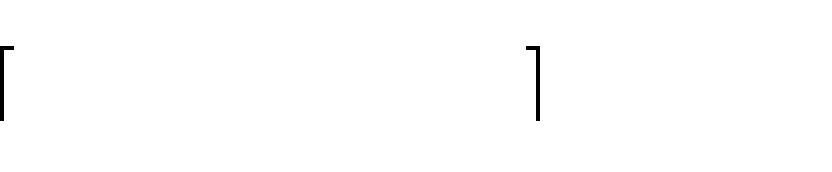
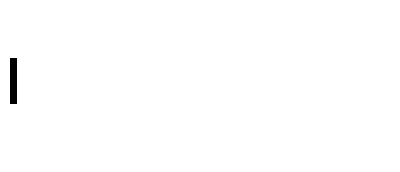
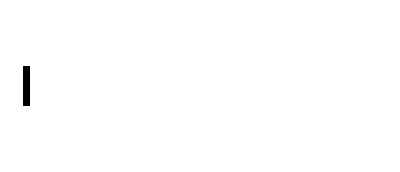
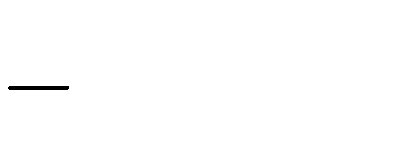
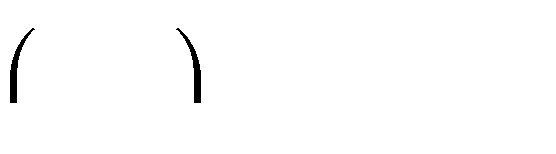
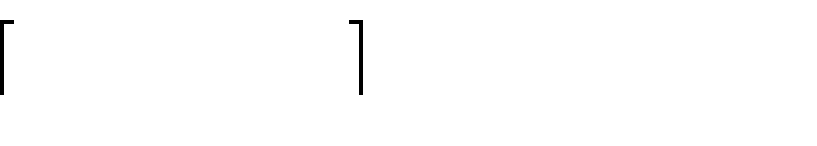
2 *y*3 :

3

1 *y*

3

2 *y* 1 *y* 1

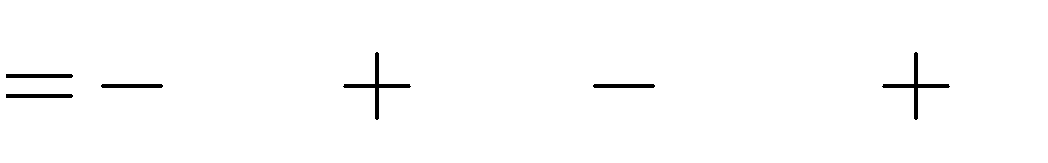


2 : 1

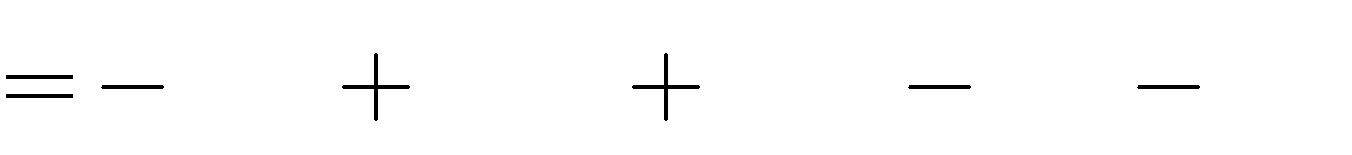
3 3

. *y*3 : *y*

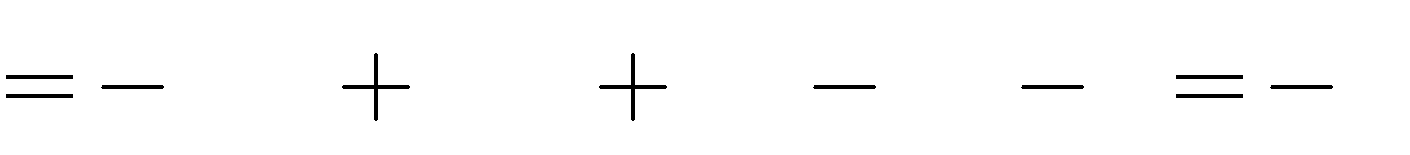
2.*y* 2. 1 *y* 1



2 *y*2 2 *y* 2 *y* 1



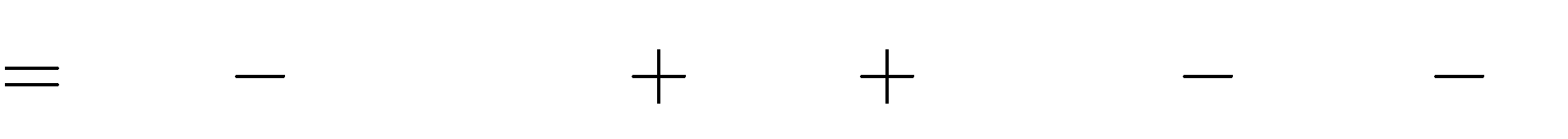
2 *y*2 2 *y*.*y* 2 *y*.1 2.*y* 2.1



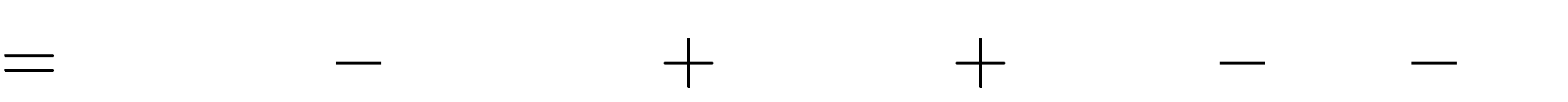
2 *y*2 2 *y*2 2 *y* 2 *y* 2

2

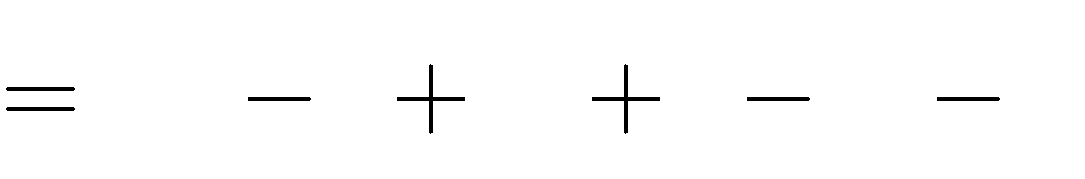
1. *D*



5*x*3 4*x*2 : 2*x*2 3*x*4 6*x* : 3*x x*. *x*2 1



5*x*3 : 2*x*2 4*x*2 : 2*x*2 3*x*4 : 3*x* 6*x* : 3*x x*.*x*2 *x*.1



5 *x*

2

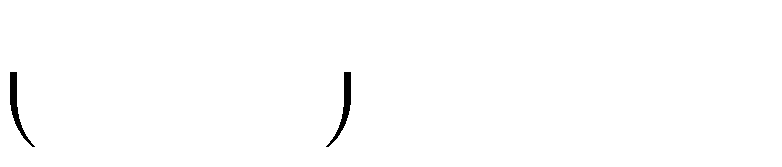
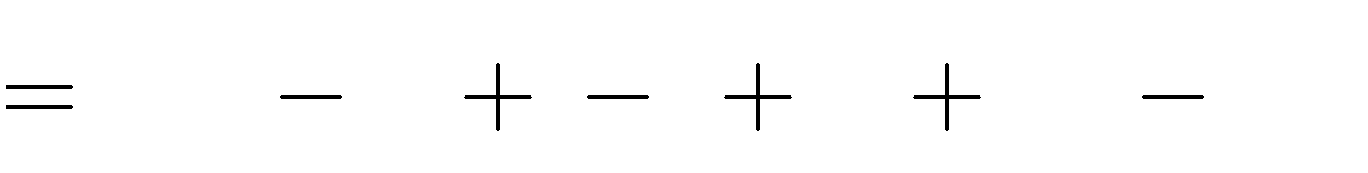
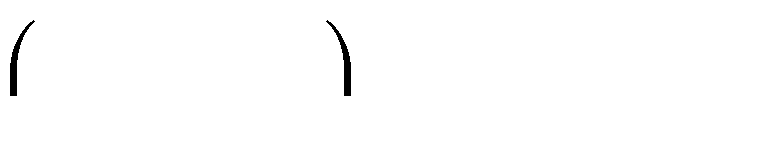
2

*x*3

2

*x*3

*x*



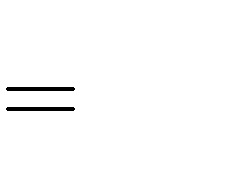
5 *x*

2

*x*

2 2

*x*3 *x*3



3 *x*

2

# Dạng 2. Tìm điều kiện của *n* để phép tính cho trước là phép chia hết

1. **Phương pháp giải:**

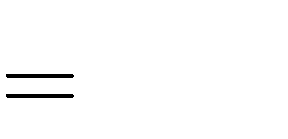
# Sử dụng nhận xét:

* 1. Đơn thức *A* chia hết cho đơn thức *B* khi mỗi biến của *B* đều là biến của *A* với số mũ nhỏ hơn hoặc bằng số mũ của nó trong *A* .
  2. Đa thức *A* chia hết cho đơn thức *B* nếu các hạng tử của đa thức *A* đều chia hết cho đơn thức *B* .
  3. Muốn phép chia là phép chia hết thì đa thức dư phải bằng 0.

# Bài toán.

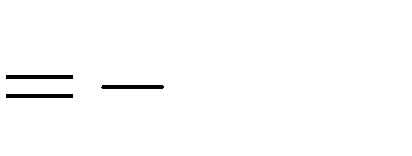
**Bài 1.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

1. *A*



15*x*3

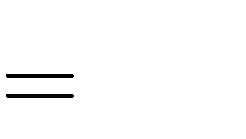
1. *A*



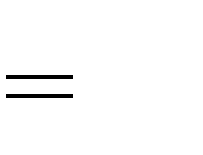
0, 5*y*6

và *B*

và *B*



5*x*2



*y*3

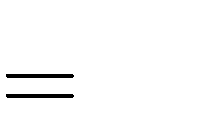
# Lời giải:

+ Câu a, b đơn thức *A* đều có chia hết cho đơn thức *B* vì mỗi biến của *B* đều là biến của *A*

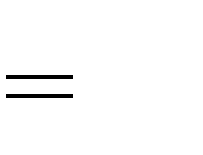
với số mũ nhỏ hơn hoặc bằng số mũ của nó trong *A*

**Bài 2.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

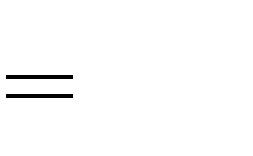
1. *A* và *B*



*x*5

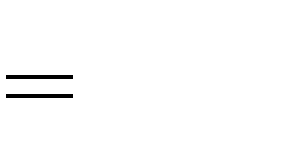


*y*3



5*y*3

1. *A*



15 *y*2

# Lời giải:

và *B*

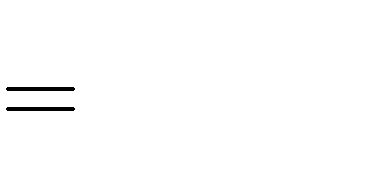
+ Câu a đơn thức *A* không chia hết cho đơn thức *B* vì mỗi biến của *B* không là biến của *A*

+ Câu b đơn thức *A* không chia hết cho đơn thức *B* vì mỗi biến của *B* đều là biến của *A*

nhưng số mũ của biến *y* lớn hơn số mũ của biến *y* trong *A*

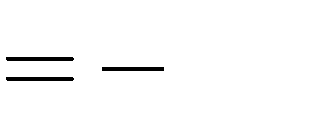
**Bài 3.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay

không? *A* và *B*



3 1 *z*4

2

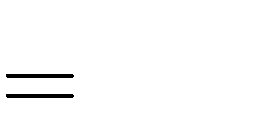


2,5

# Lời giải:

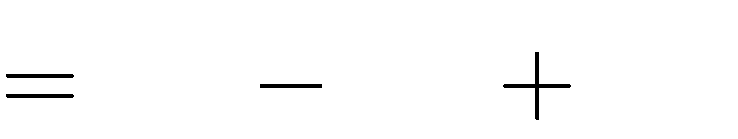
+ Đơn thức *A* có chia hết cho đơn thức *B* vì mỗi biến của *B* đều là biến của *A* với số mũ nhỏ hơn hoặc bằng số mũ của nó trong *A*

**Bài 4 .** Ai đúng, ai sai?



2*x*2

Khi giải bài tập: “Xét xem đa thức *A*



5*x*4 4*x*3 6*x*2

không”

có chia hết cho đơn thức *B*

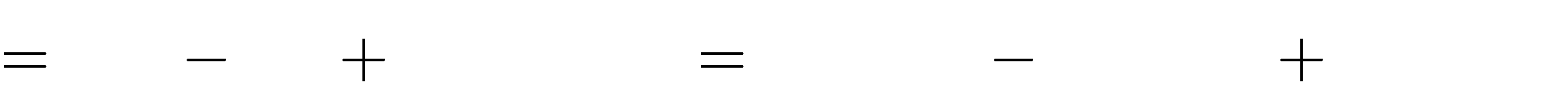
hay

Hà trả lời: “ *A* không chia hết cho *B* vì 5 không chia hết cho 2”,

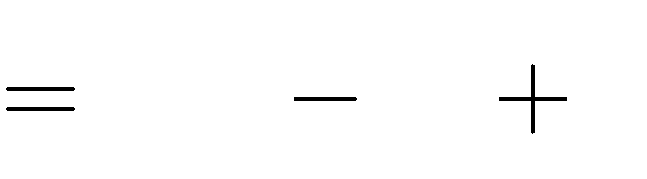
Quang trả lời: “ *A* chia hết cho *B* vì mọi hạng tử của *A* đều chia hết cho *B* ”. Cho biết ý kiến của em về lời giải của hai bạn.

# Lời giải:

*A* : *B*



5*x*4 4*x*3 6*x*2 : 2*x*2 5*x*4 : 2*x*2 4*x*3 : 2*x*2 6*x*2 : 2*x*2



5 *x*2

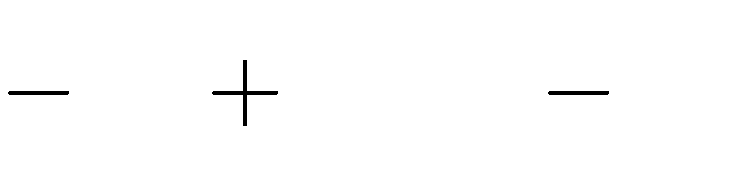
2

2*x*

3

Do đó *A* chia hết cho *B* vì mọi hạng tử của *A* đều chia hết cho *B*

Vậy Quang trả lời đúng, Hà trả lời sai.



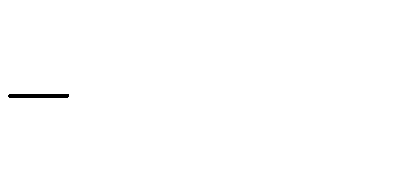
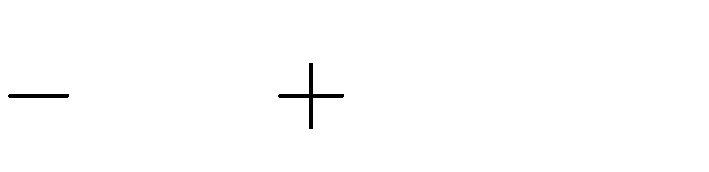
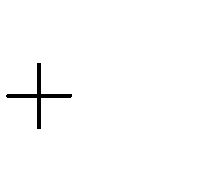
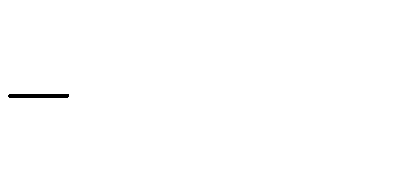
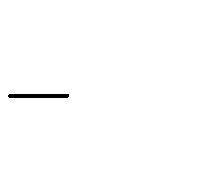
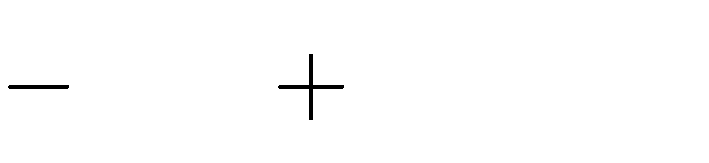
4*x a* : *x* 2

**Bài 5.** Bạn Tâm lúng túng không biết làm thế nào để phép chia *x*3

chia hết? Em có thể giúp bạn Tâm được không?

# Lời giải:

là phép



*x*3

*x*3

4*x*

*a*

2*x*2

2*x*2

2*x*2

*x x*2

2

2*x*

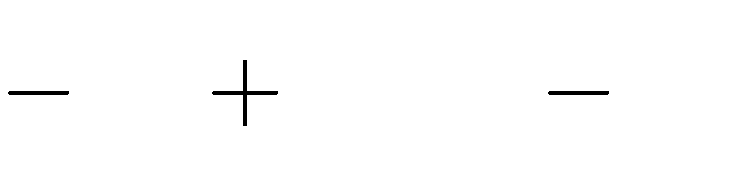
4*x*

4*x*

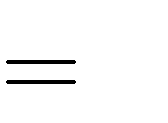
*a*

*a*

Để phép chia *x*3 là phép chia hết thì *a*



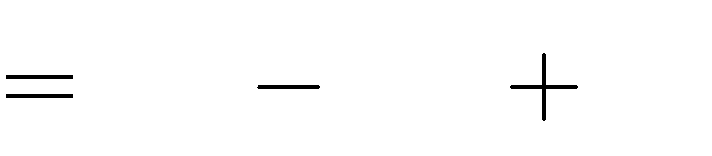
4*x a* : *x* 2



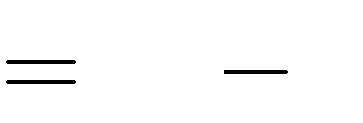
0

**Bài 6.** Tìm *m* sao cho đa thức *A* chia hết cho đa thức *B* biết:

1. *A B*

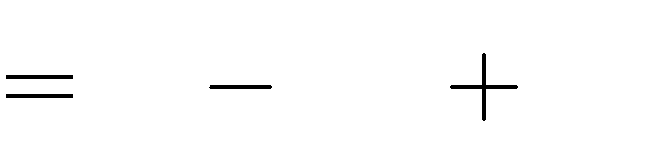


8*x*2 26*x m*;



2*x* 3

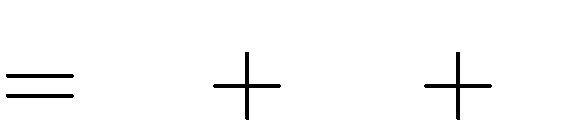
1. *A B*



*x*3

13*x*

*m*;

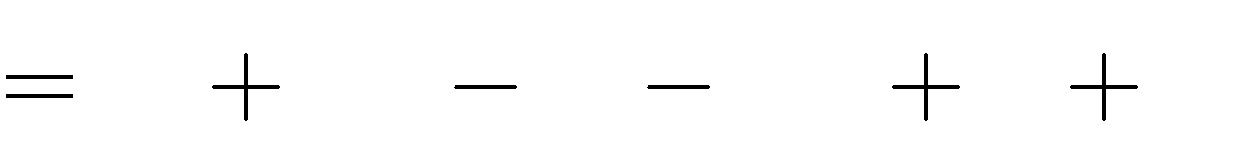


*x*2

4*x*

3

1. *A B*



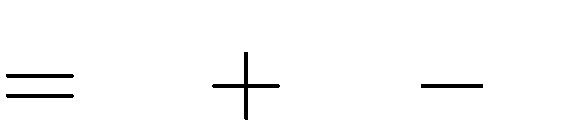
*x*4

5*x*3

*x*2

17*x*

*m* 4;

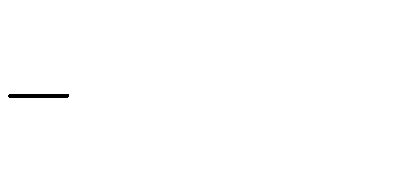
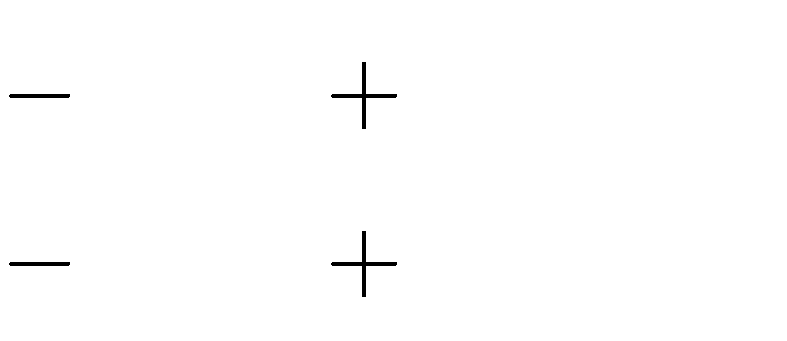
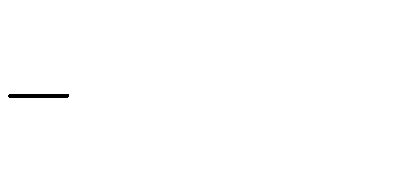
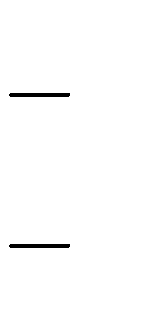
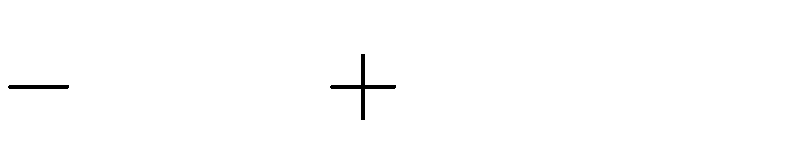


*x*2

2*x* 3

# Lời giải:

a)



8*x*2

8*x*2

26*x* 12*x* 14*x*

14*x*

*m*

2*x*

4*x*

3

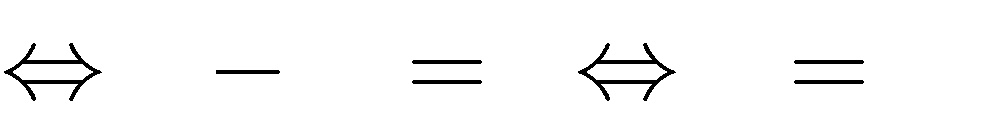
7

*m*

21

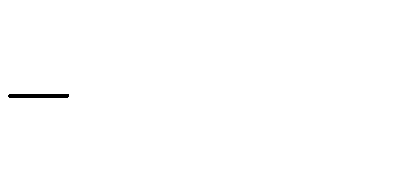
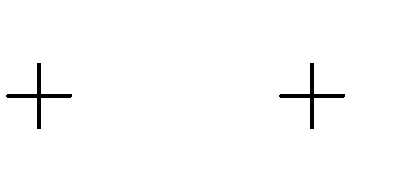
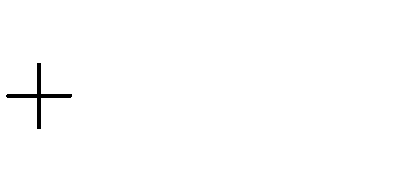
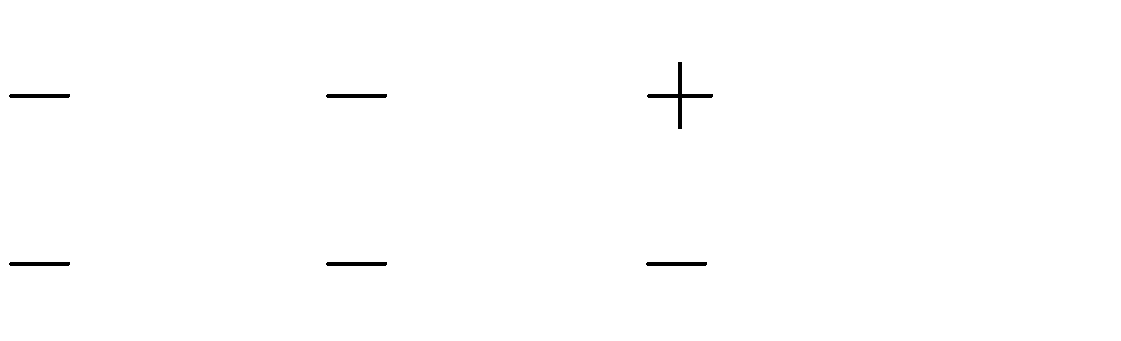
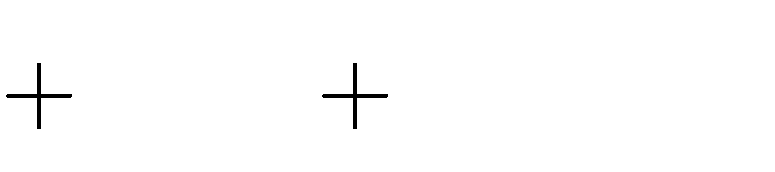
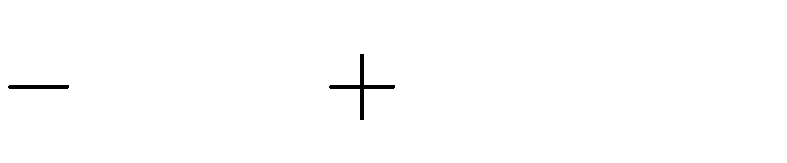
*m* 21

Đa thức *A* chia hết cho đa thức *B*



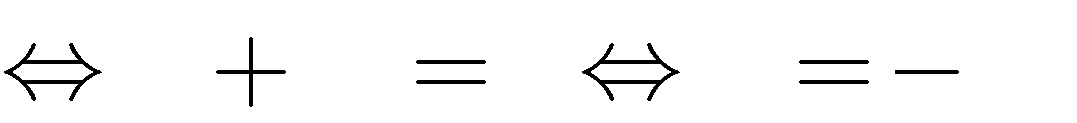
*m* 21 0 *m* 21

b)



|  |  |  |  |
| --- | --- | --- | --- |
| *x*3 | 13*x* | *m* | *x*2 4*x* 3 |
| *x*3 4*x*2 | 3*x* |  | *x* 4 |
| 4*x*2  4*x*2 | 16*x*  16*x* | *m*  12 |  |
|  |  | *m* 12 |  |

Đa thức *A* chia hết cho đa thức *B*

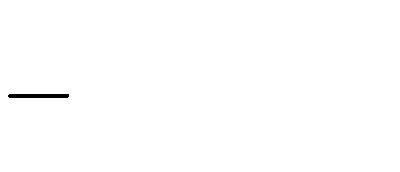
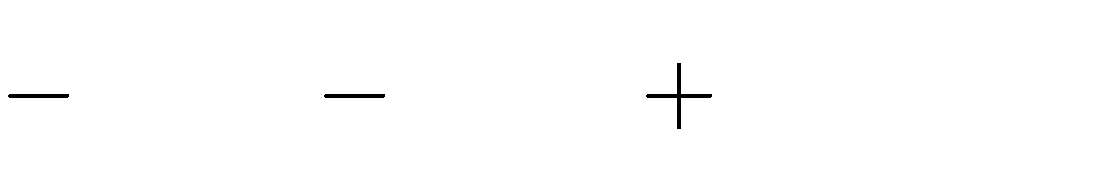
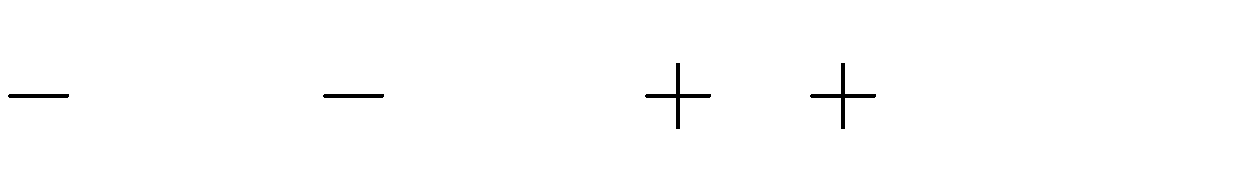
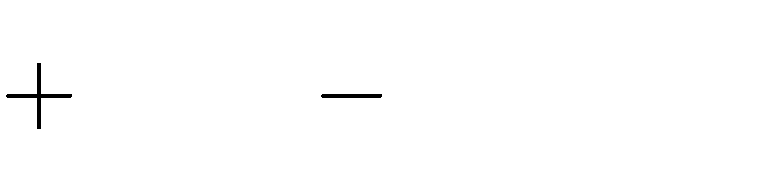
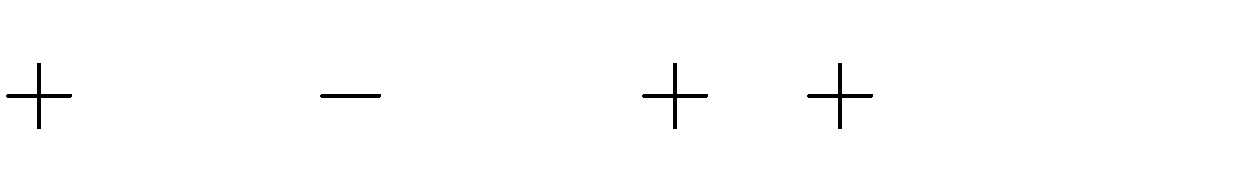
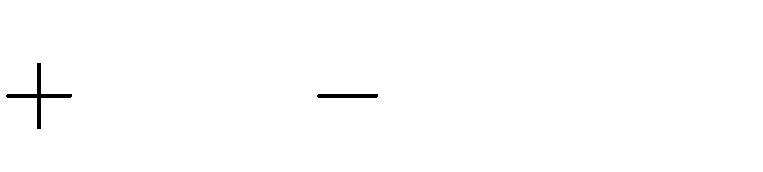
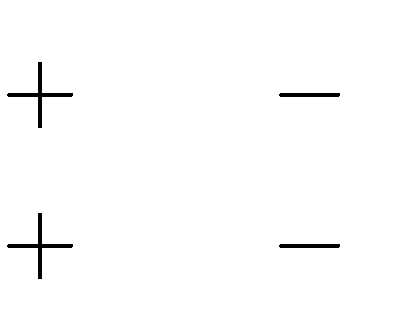
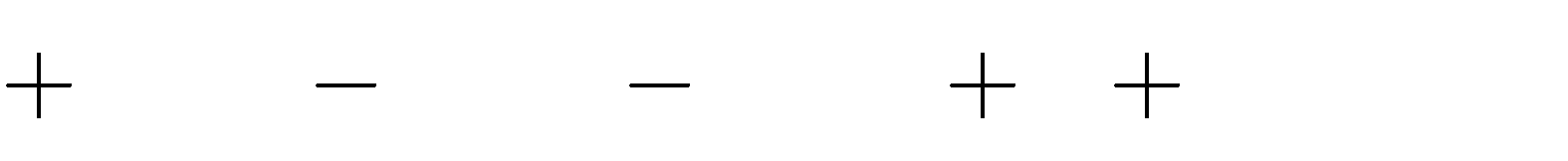


*m* 12 0 *m*

12

c)

*x*4



5*x*3

2*x*3

*x*2

3*x*2

17*x m* 4 *x*2

*x*2

2*x*

3*x*

3

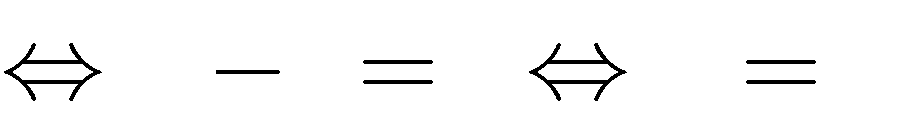
4

*m* 8

*x*4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3*x*3  3*x*3 | 2*x*2  6*x*2 | 17*x*  9*x* | *m* | 4 |
|  | 4*x*2  4*x*2 | 8*x*  8*x* | *m*  12 | 4 |

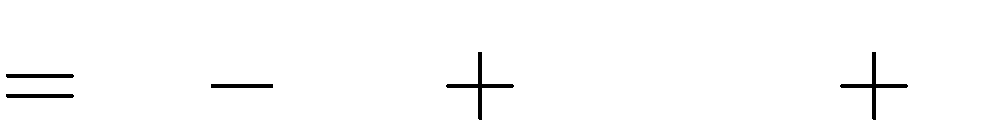
Đa thức *A* chia hết cho đa thức *B*



*m* 8 0 *m* 8

**Bài 7.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

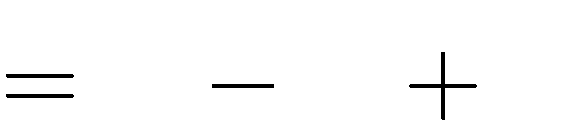
1. *A* và *B*



*x*4

3*x*3

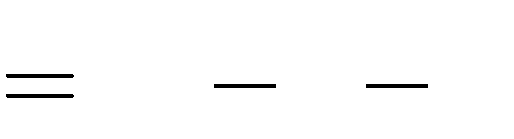
3*x*2 +a*x b*



*x*2

3*x*

4

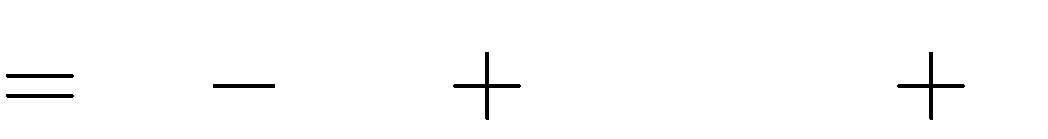


*x*2

*x*

2

1. *A*

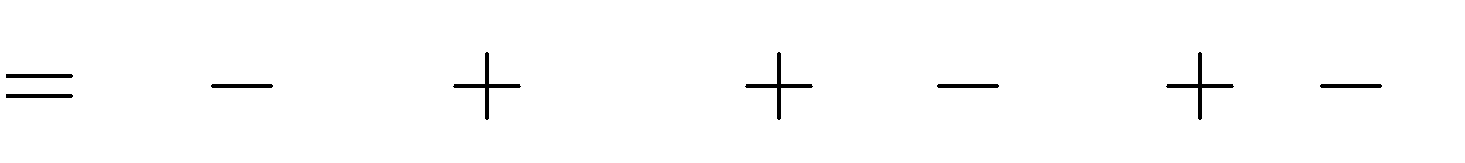


*x*4

9*x*3

21*x*2 +a*x b*

1. *A*



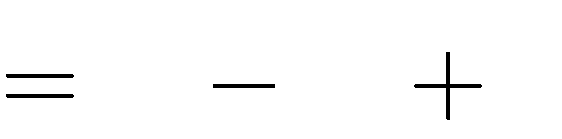
*x*4

7*x*3

10*x*2 *a* 1 *x b a*

và *B*

và *B*



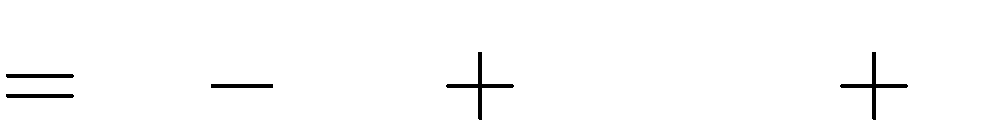
*x*2

6*x*

5

# Lời giải:

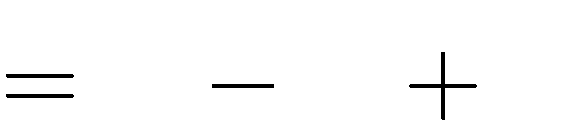
1. *A* và *B*



*x*4

3*x*3

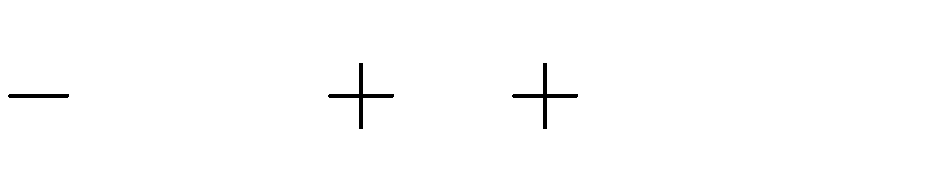
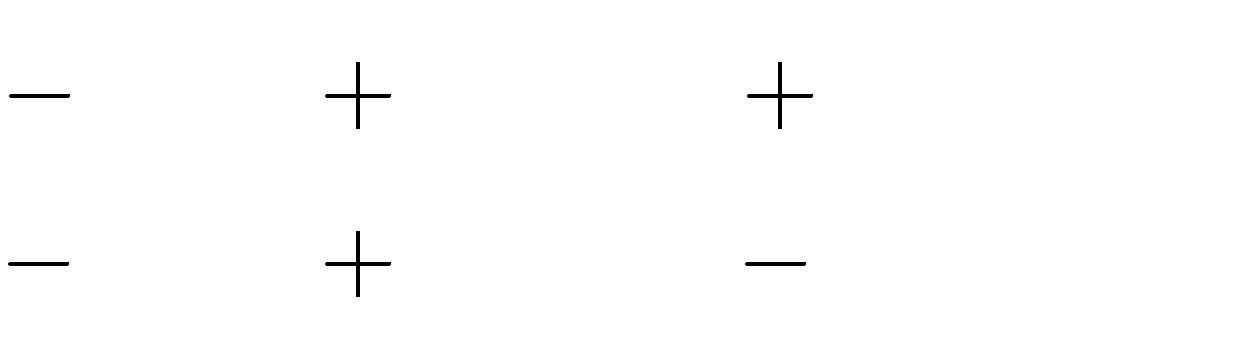
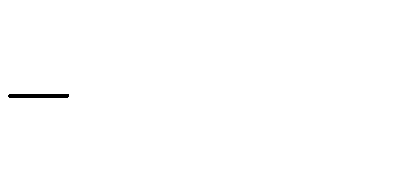
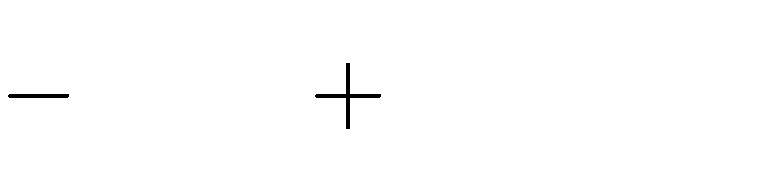
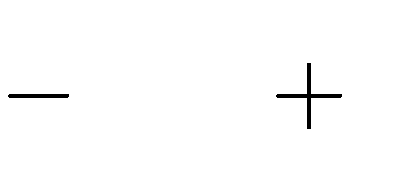
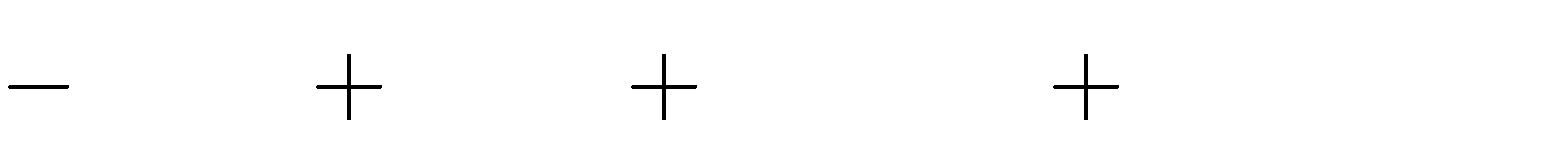
3*x*2 +a*x b*



*x*2

3*x*

4



*x*4

*x*4

3*x*3

3*x*3

3*x*2

4*x*2

*x*2

*x*2

a*x*

*b*

*x*2

*x*2

3*x*

1

4

a*x* 3*x*

*a* 3 *x*

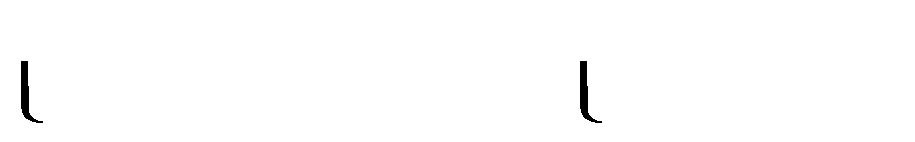
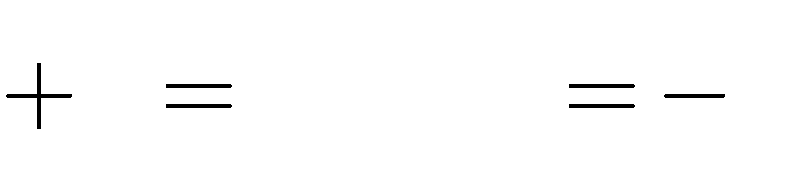
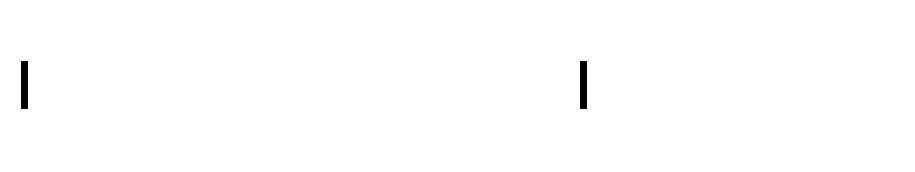
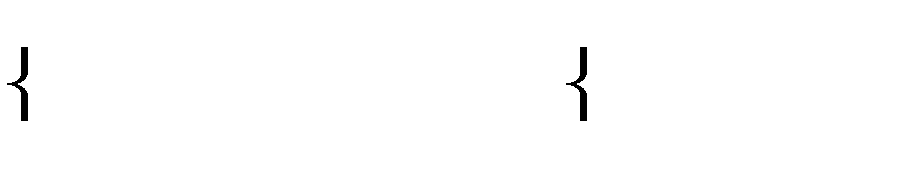
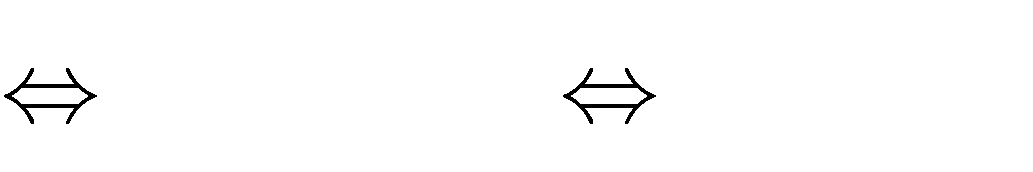
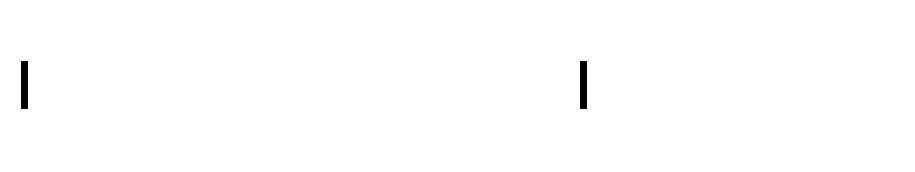
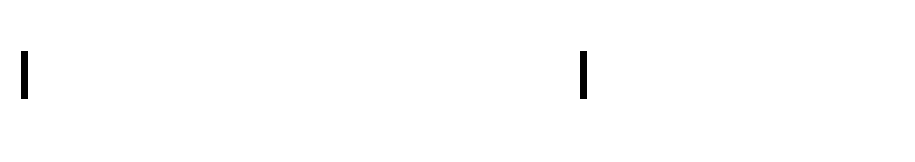
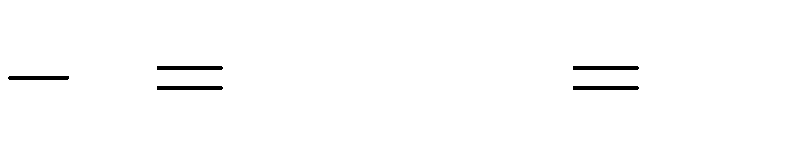
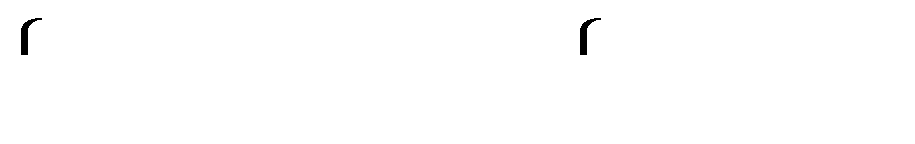
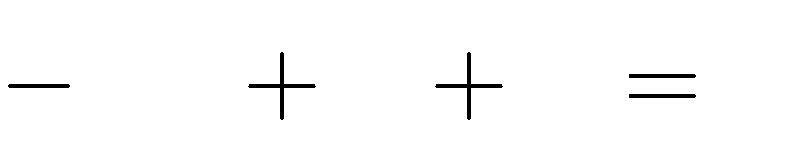
*b*

4

*b*

4

Để đa thức *A* chia hết cho đa thức *B* thì *a*



3 *x b* 4

0

*a* 3

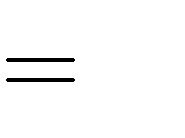
*b* 4

0

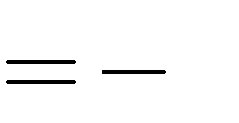
0

1. 3
2. 4

Vậy *a b*

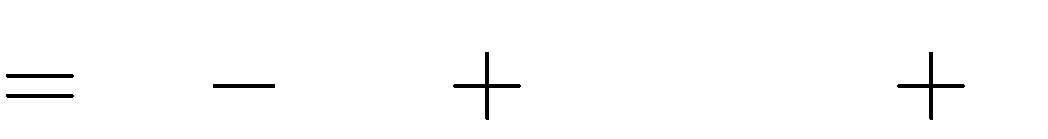


3;



4

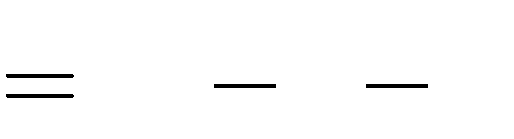
1. *A* và *B*



*x*4

9*x*3

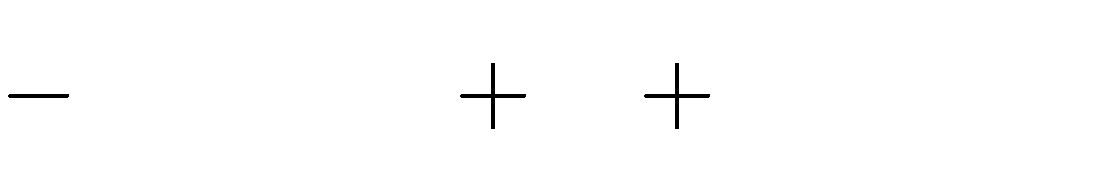
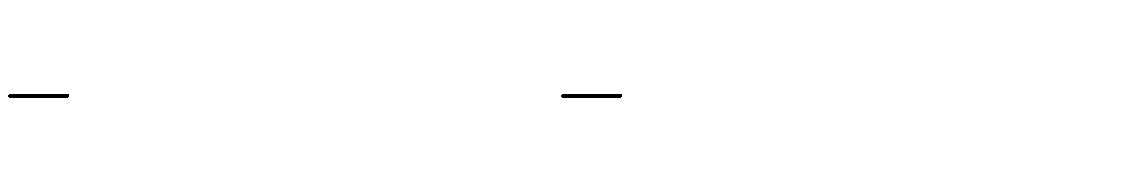
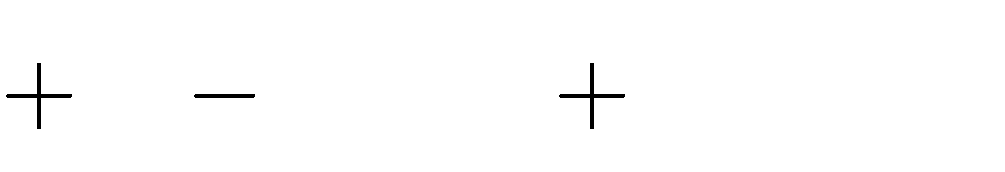
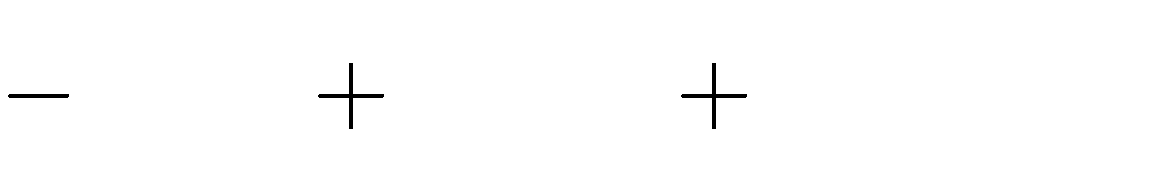
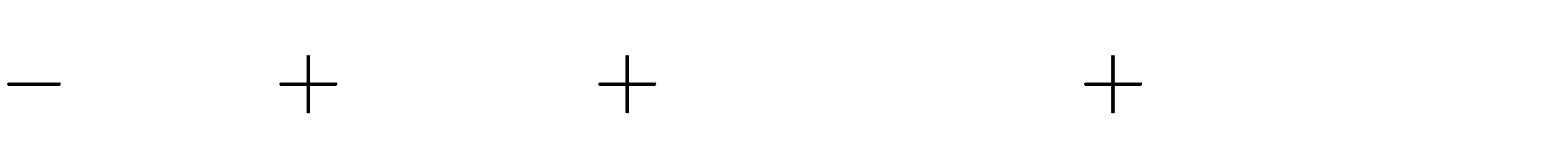
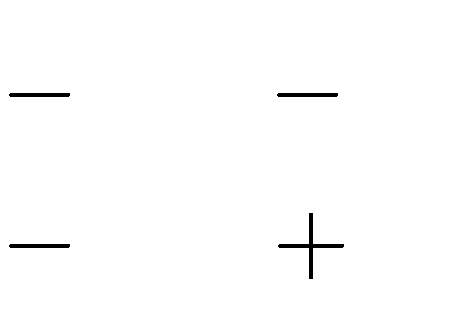
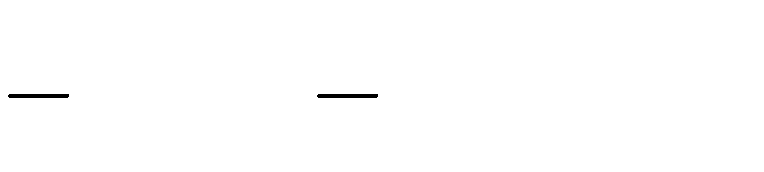
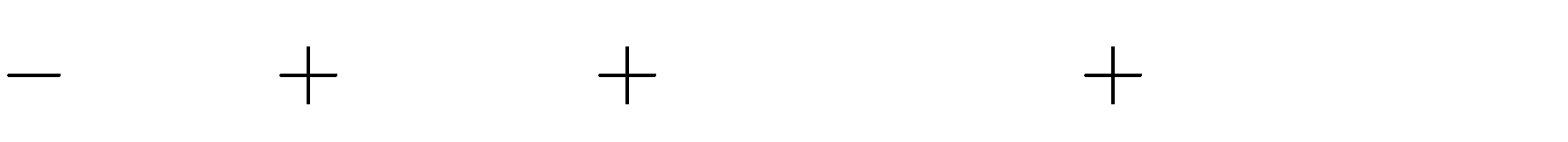
21*x*2 +a*x b*



*x*2

*x*

2



*x*4

*x*4

9*x*3 *x*3 8*x*3

8*x*3

21*x*2

2*x*2

23*x*2

8*x*2

15*x*2

15*x*2

*ax*

*b*

*x*2

*x*2

*x*

8*x*

2

15

*ax*

16*x*

*a* 16 *x*

15*x*

*a* 1 *x*

*b*

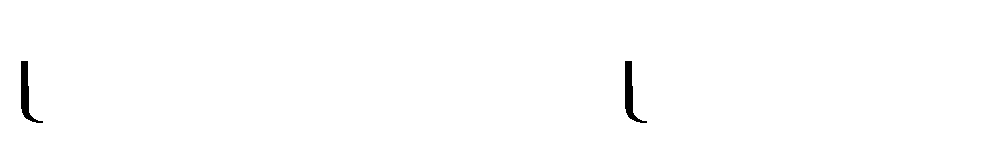
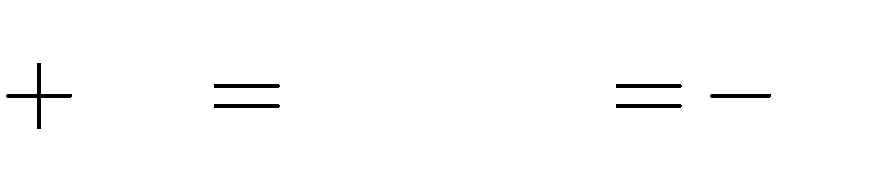
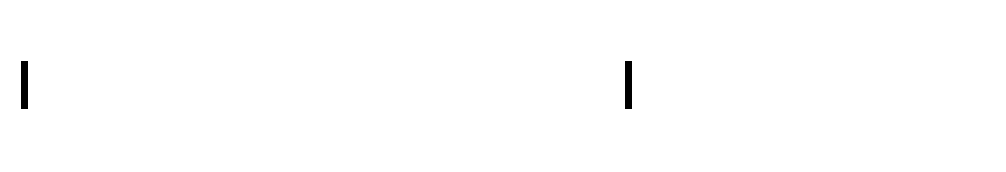
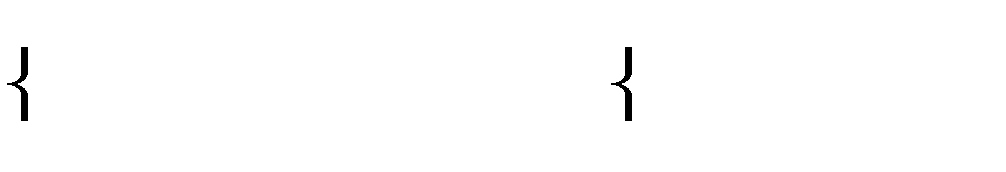
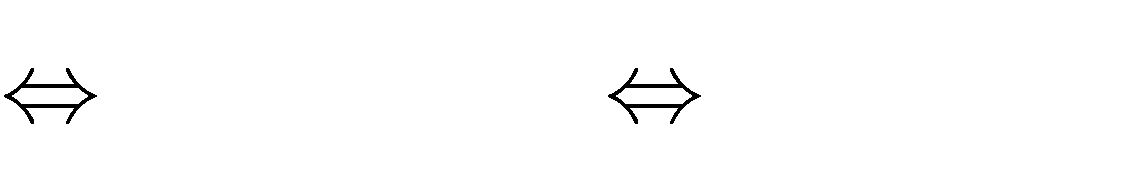
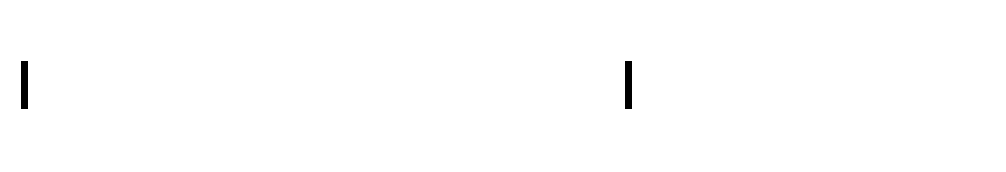
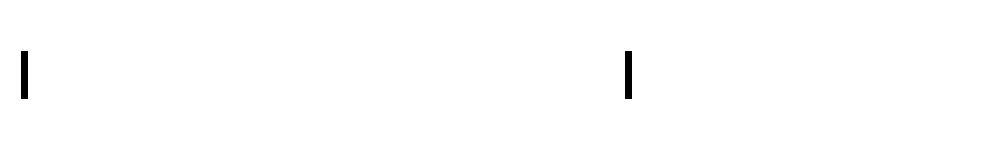
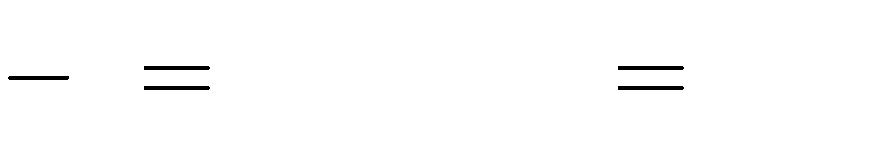
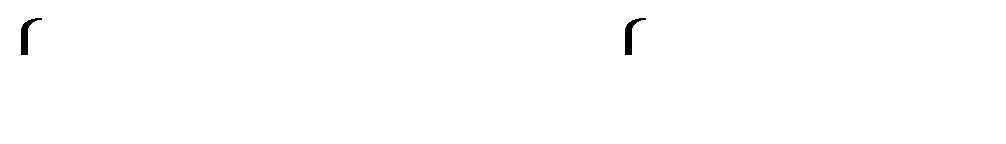
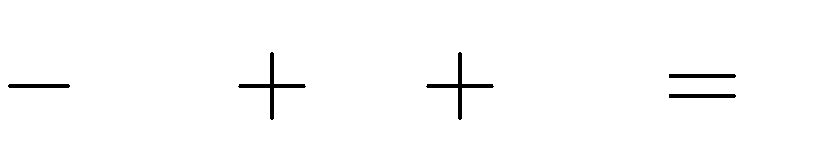
*b*

30

*b*

30

Để đa thức *A* chia hết cho đa thức *B* thì *a*



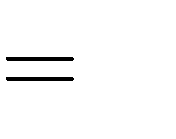
1 *x b* 30 0

*a* 1 0

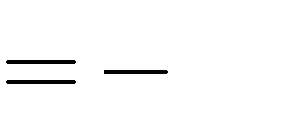
*b* 30 0

1. 1
2. 30

Vậy *a b*

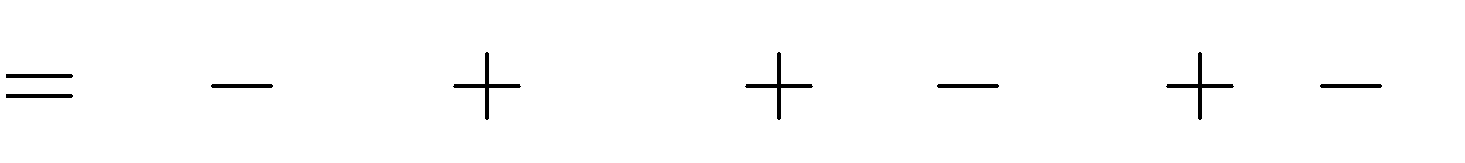


1;



30

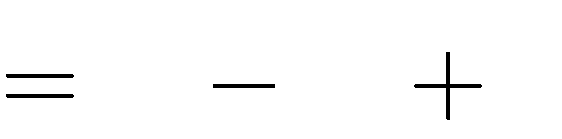
1. *A* và *B*



*x*4

7*x*3

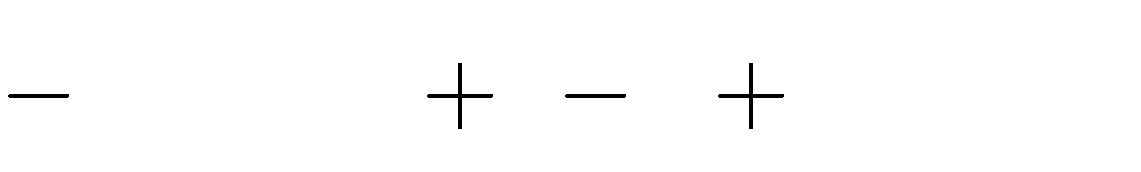
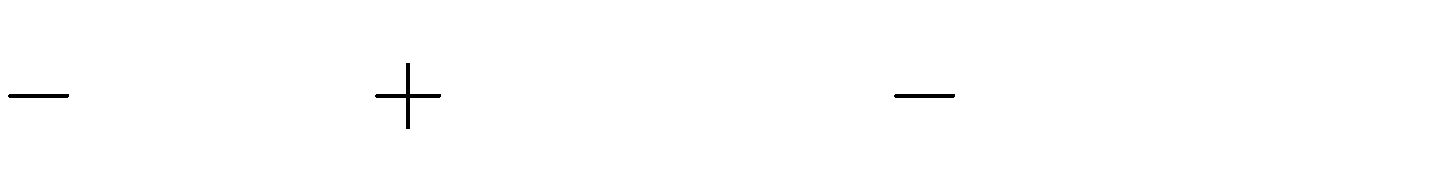
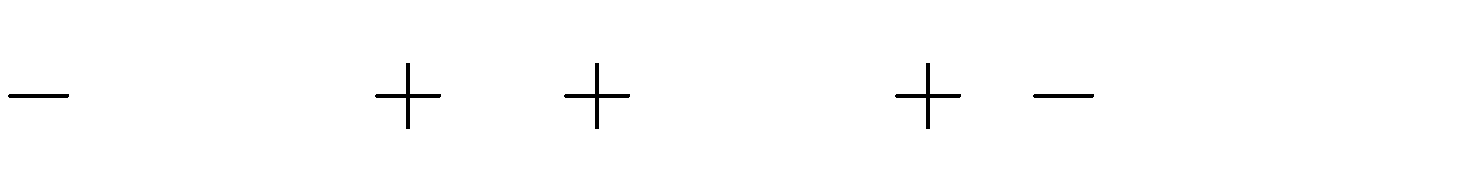
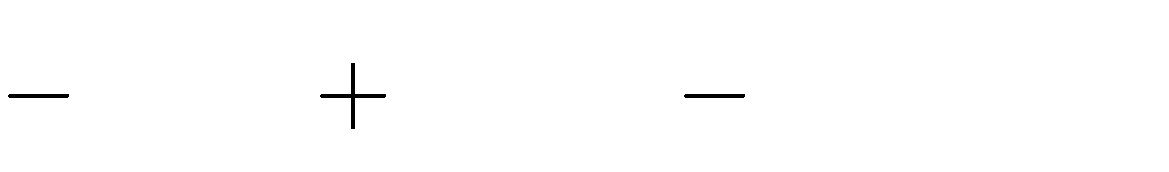
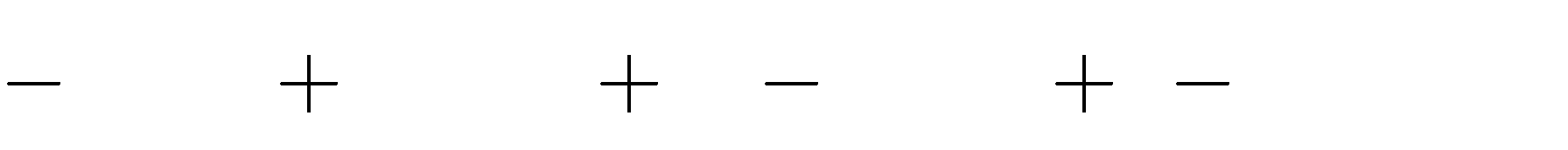
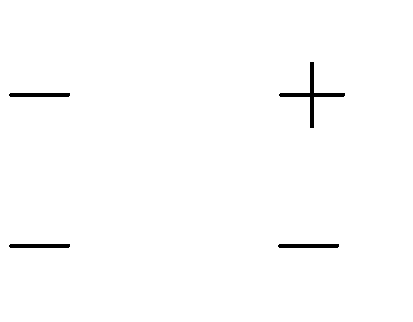
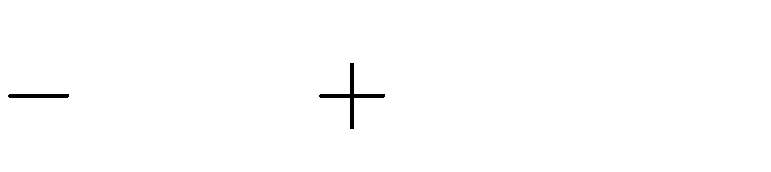
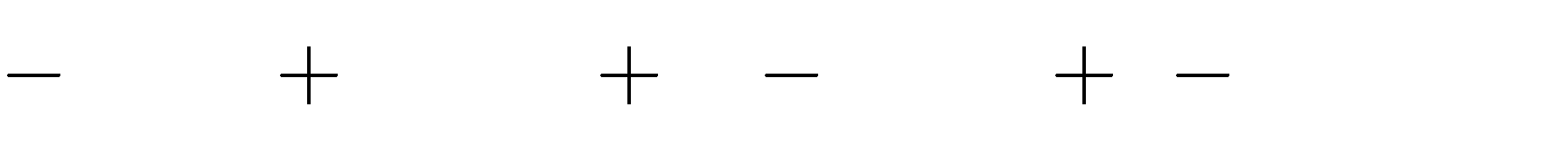
10*x*2 *a* 1 *x b a*



*x*2

6*x*

5



*x*4

*x*4

7*x*3

6*x*3

*x*3

*x*3

10*x*2

5*x*2

5*x*2

6*x*2

*x*2

*x*2

*a* 1 *x*

*b a*

*x*2

*x*2

6*x*

*x*

5

1

*a* 5*x a*

6*x*

*a*

1 *x*

*b*

*a*

4 *x*

*b*

5

*b*

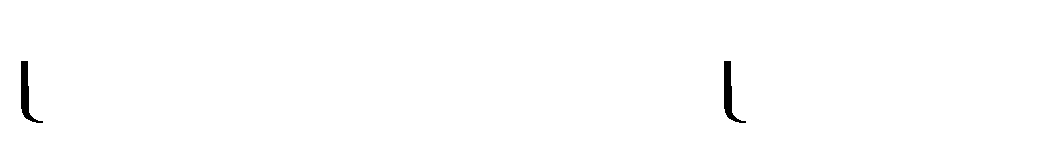
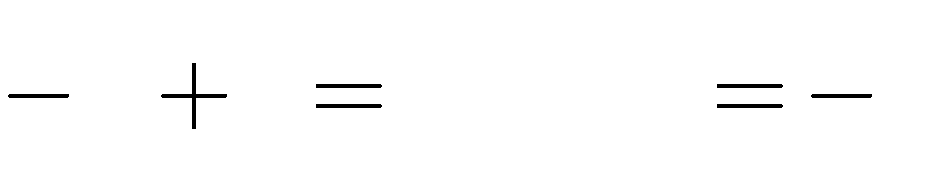
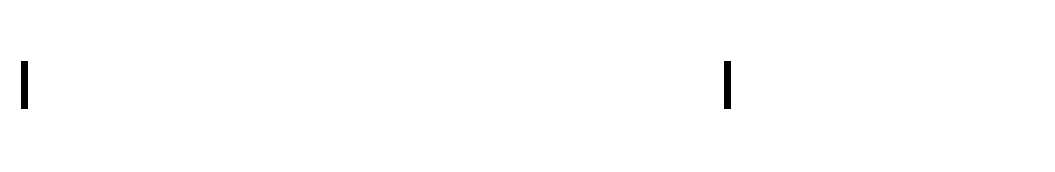
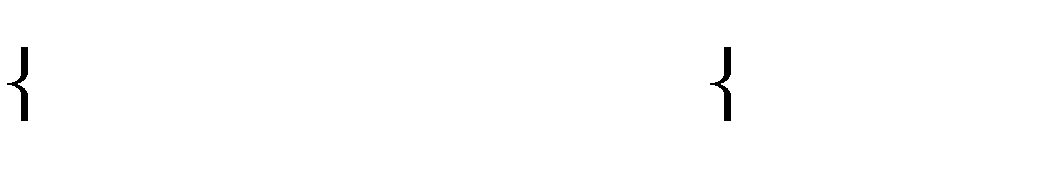
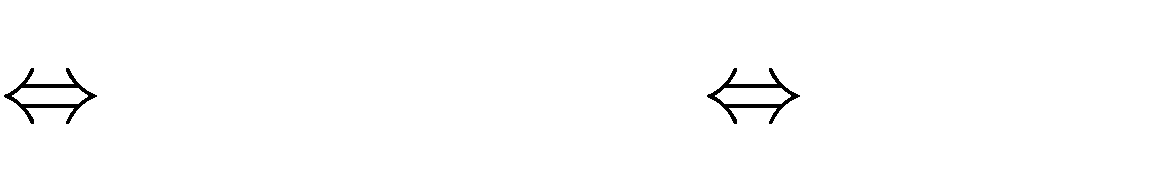
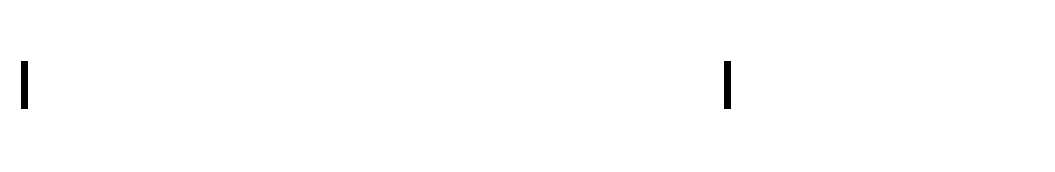
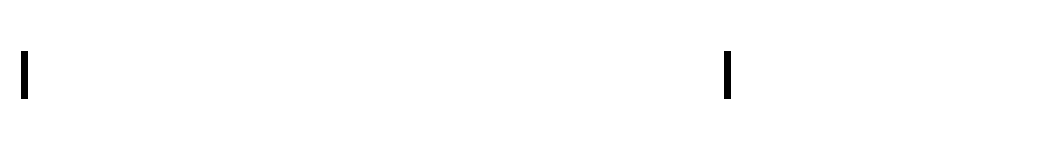
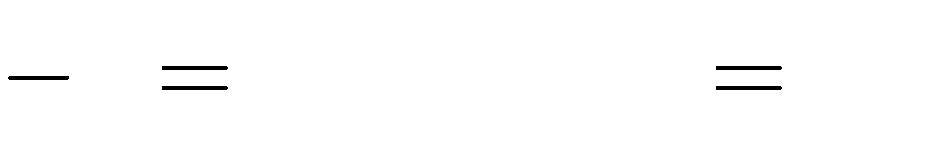
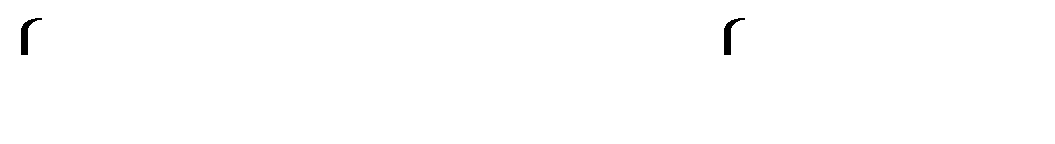
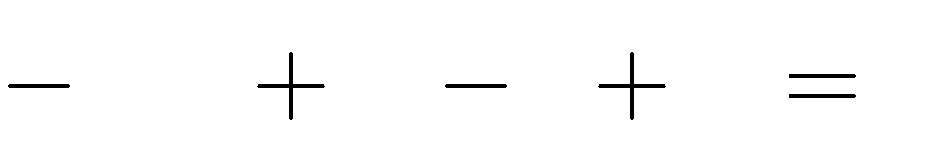
*a*

2 *x*

*a*

5

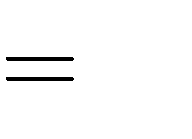
Để đa thức *A* chia hết cho đa thức *B* thì *a*



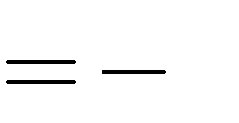
2 *x b a* 5 0

1. 2 0
2. *a* 5 0
3. 2
4. 3

Vậy *a b*



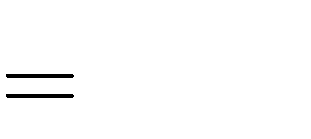
2;



3

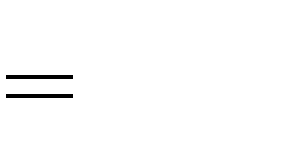
**Bài 8.** Tìm điều kiện của *n* để biểu thức *A* chia hết cho biểu thức *B*

1. *A*



18*x*10

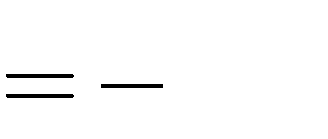
1. *A*



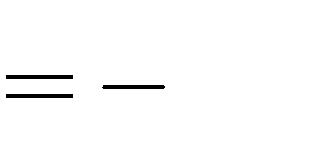
18*yn*

và *B*

và *B*



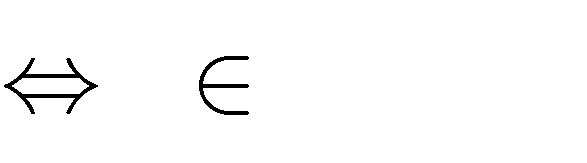
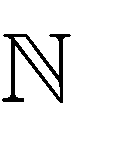
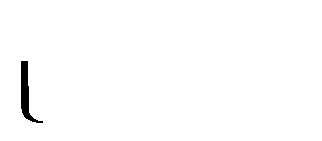
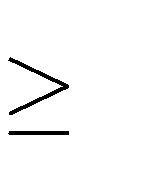
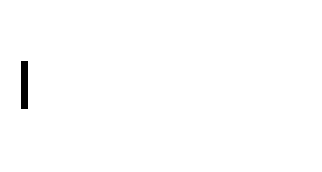
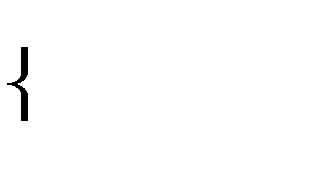
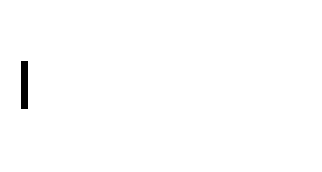
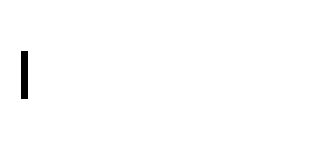
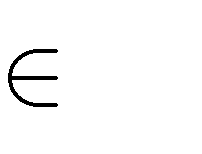
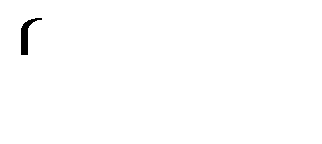
6*xn*



6 *y*3

# Lời giải:

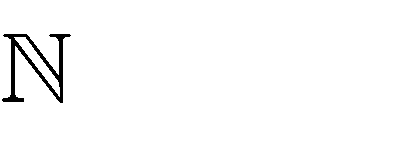
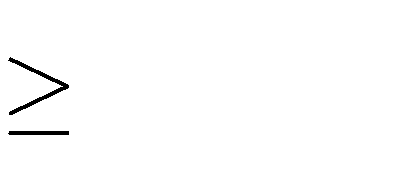
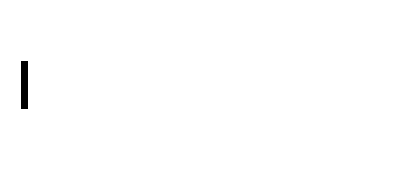
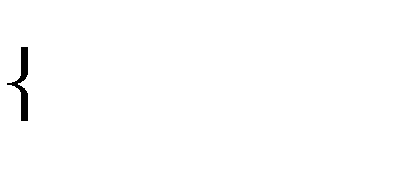
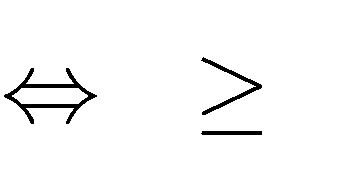
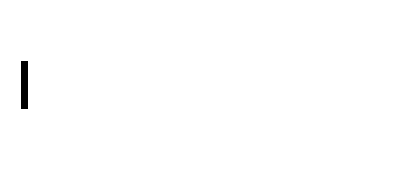
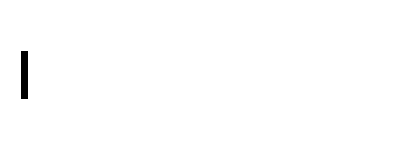
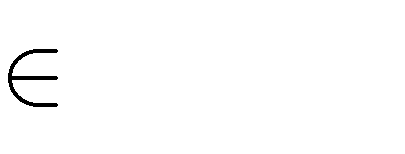
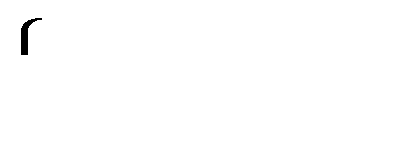
1. Để biểu thức *A* chia hết cho biểu thức *B* thì *n*



10 *n*

*n* 0;1; 2;...;10

1. Để biểu thức *A* chia hết cho biểu thức *B* thì

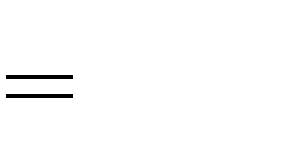


*n*

*n*

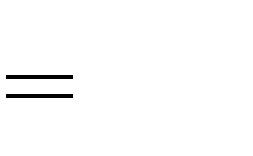
3

*n* 3



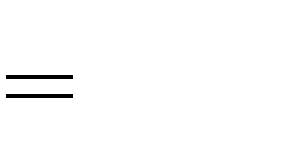
23 *yn*

**Bài 9.** Tìm số tự nhiên *n* để đơn thức *A*



3*y*4

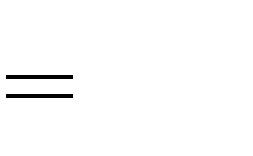
# Lời giải:



23 *yn*

chia hết cho đơn thức *B*

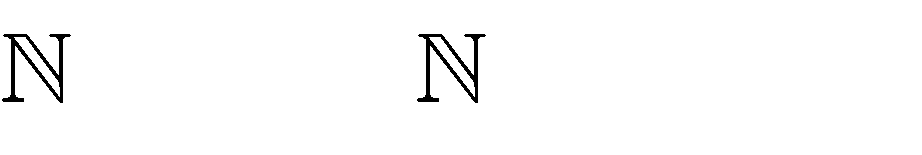
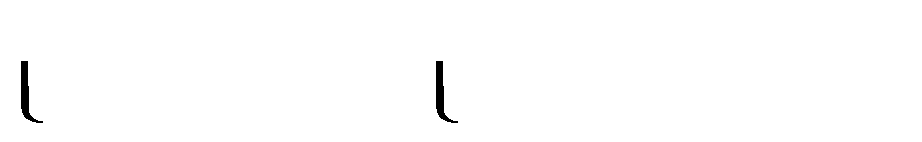
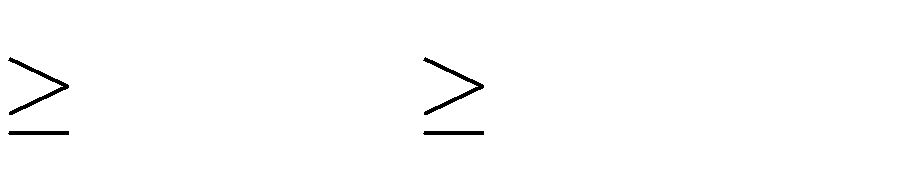
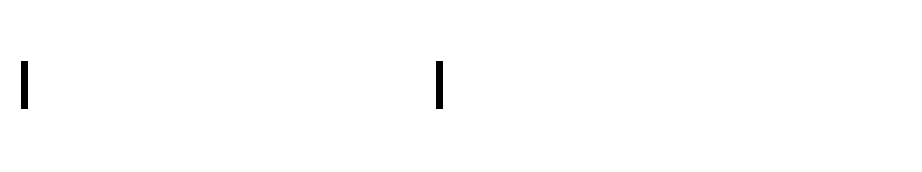
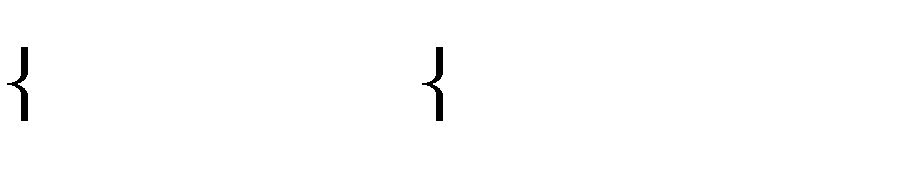
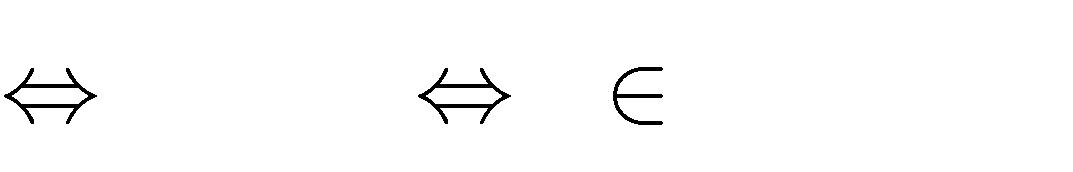
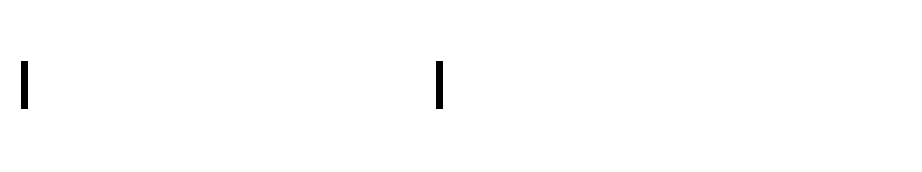
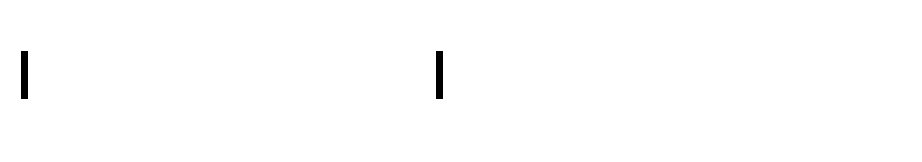
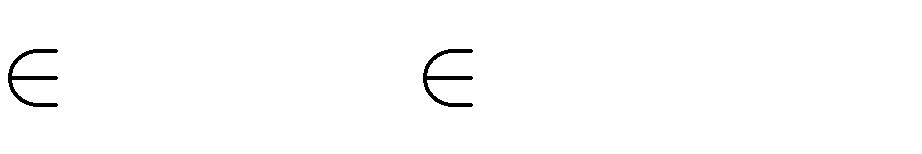
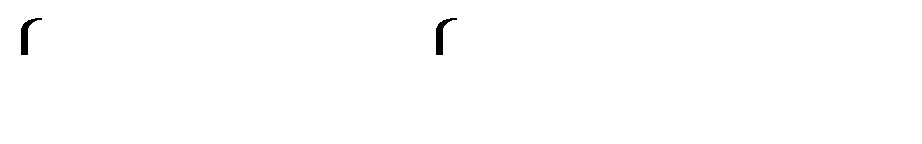
Để đơn thức *A*



3*y*4

chia hết cho đơn thức *B*

thì



*n*

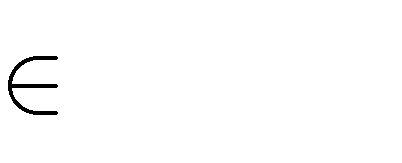
4 *n*

*n*

4

*n*

*n* 0;1; 2;3; 4

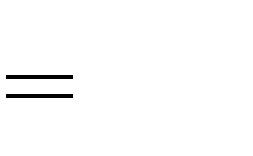
Vậy với *n*

0;1; 2;3; 4

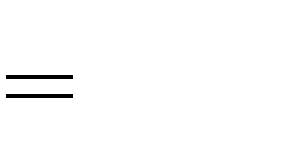
thì biểu thức đơn thức *A*

chia hết cho đơn thức *B*

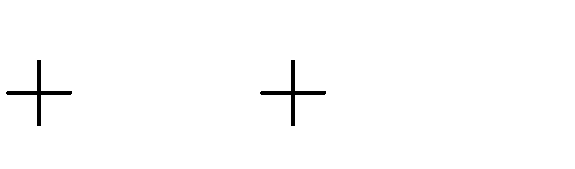
**Bài 10.** Tìm điều kiện của *n* là số tự nhiên để phép chia sau là phép chia hết *x*4



3*y*4

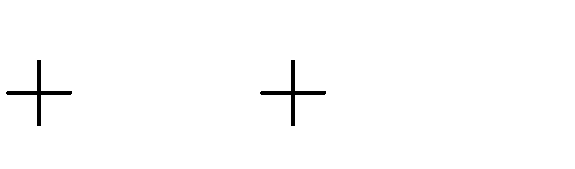


23 *yn*



2*x*2 1 : *xn*

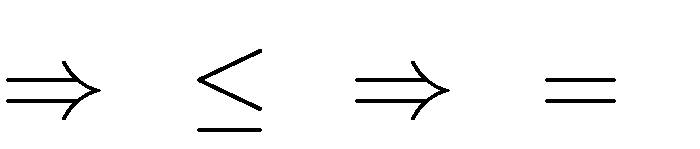
# Lời giải:



2*x*2 1 : *xn*

Ta có phép chia *x*4

*xn*

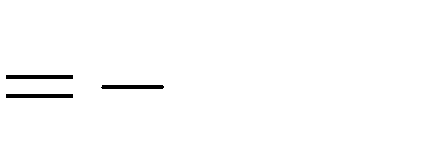
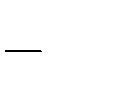


*n* 0 *n* 0

là phép chia hết khi hạng tử 1 chia hết cho

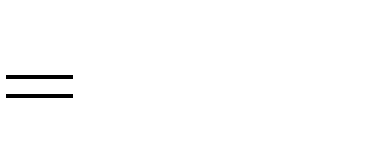
**Bài 11.** Tìm điều kiện của *n* để biểu thức *A* chia hết cho biểu thức *B*

1. *A*



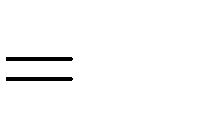
12*zn* 1;

1. *A*

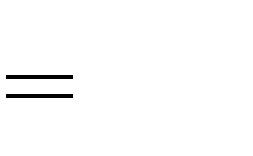


*B*

16 *yn* 1 ; *B*



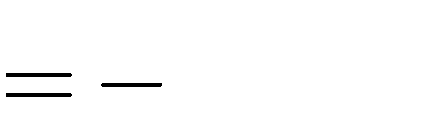
2*z*



8*y*2

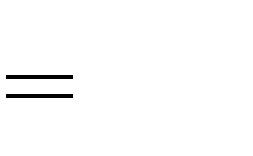
# Lời giải:

1. Để biểu thức *A*



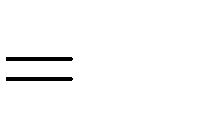
12*zn* 1

chia hết cho biểu thức *B*

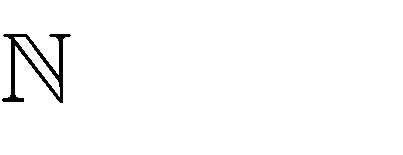
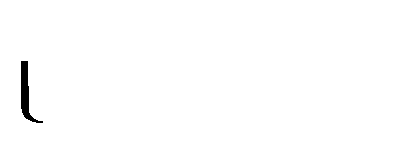
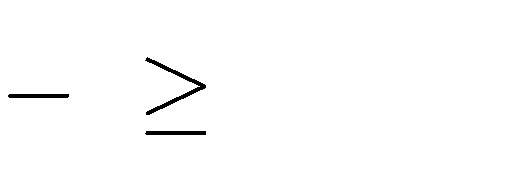
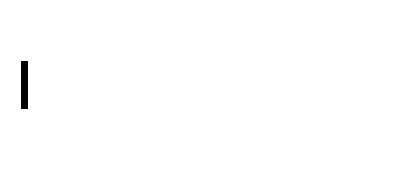
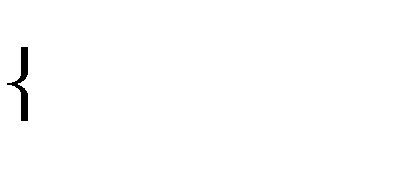
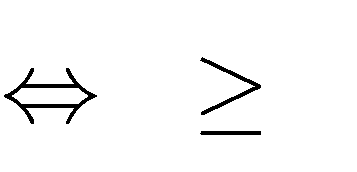
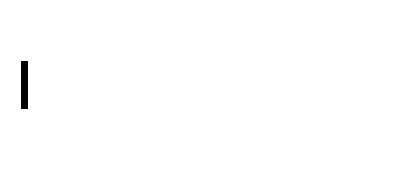
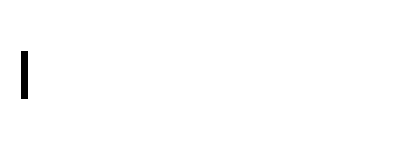
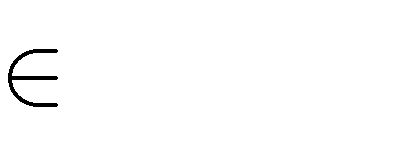
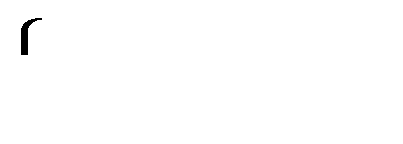


8*y*2

thì



2*z*



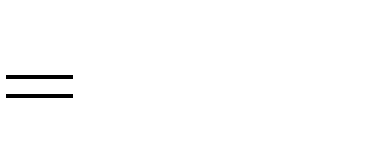
*n*

*n* 1 1

*n*

2

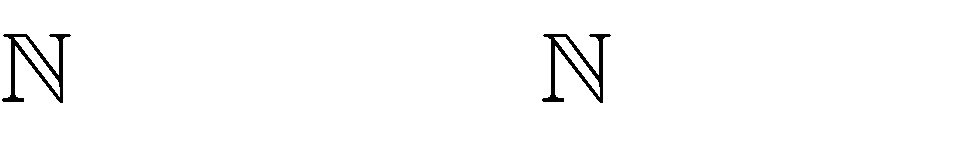
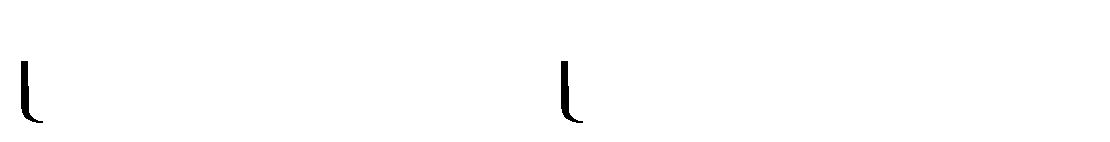
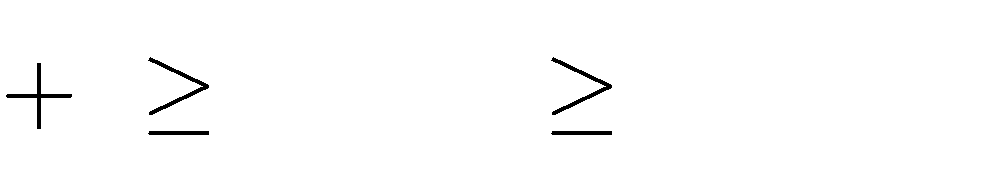
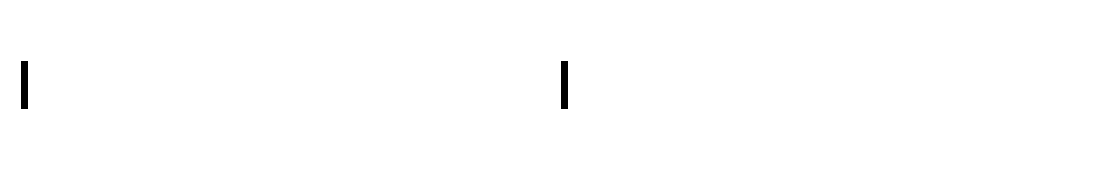
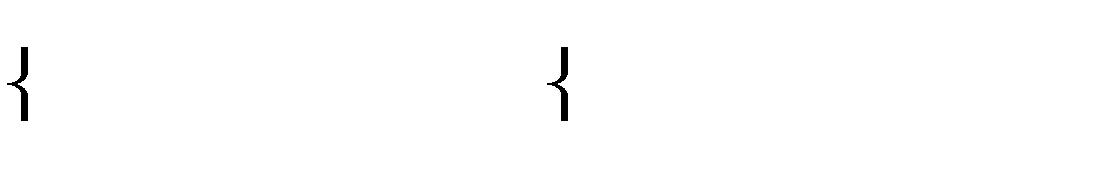
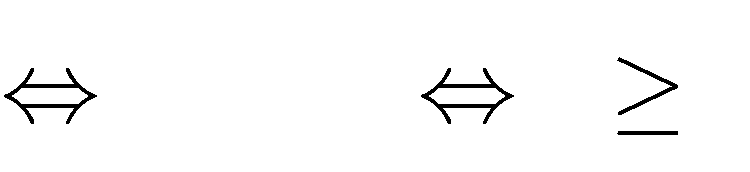
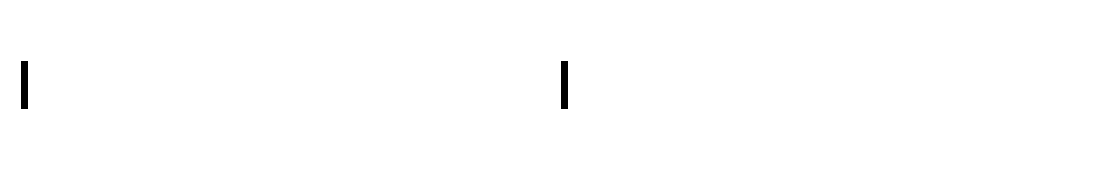
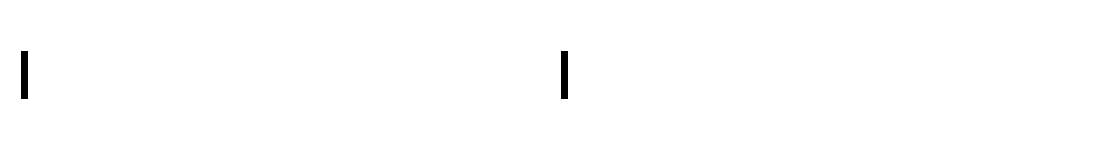
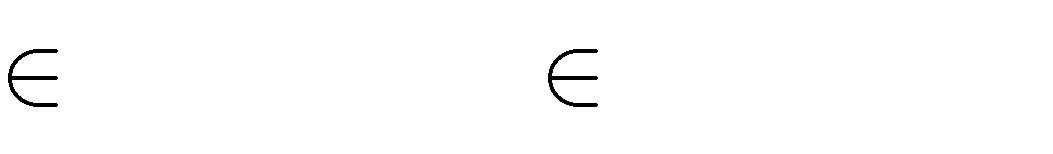
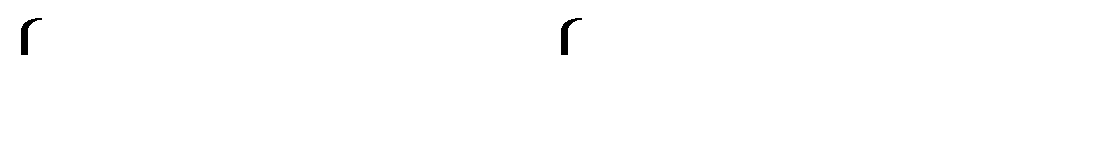
1. Để đơn thức *A*



16 *yn* 1

chia hết cho đơn thức *B*

thì



*n*

*n* 1 2

*n*

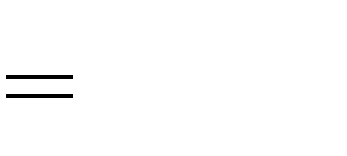
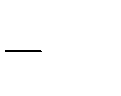
*n*

1

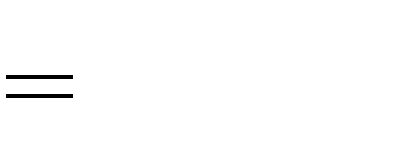
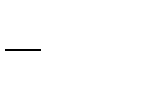
*n* 1

**Bài 12.** Tìm các giá trị nguyên của n để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho

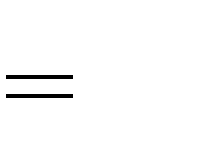
biểu thức *C* biết: *A B C*



*y*2*n* 6 ;



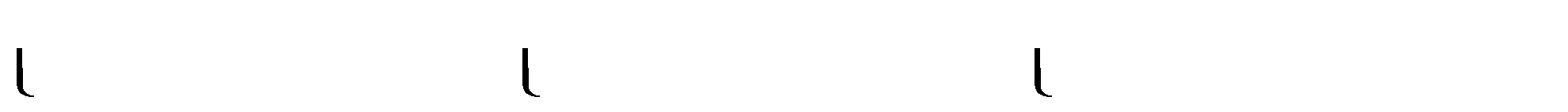
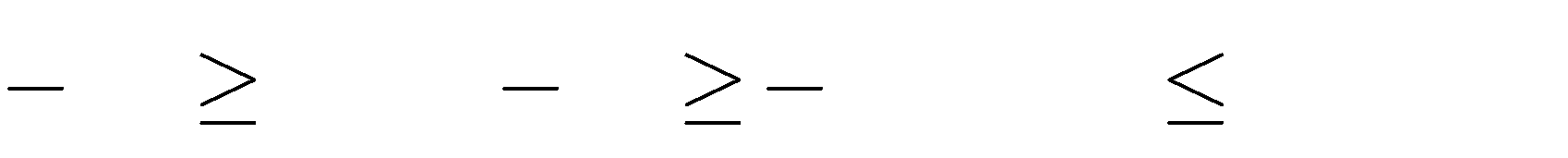
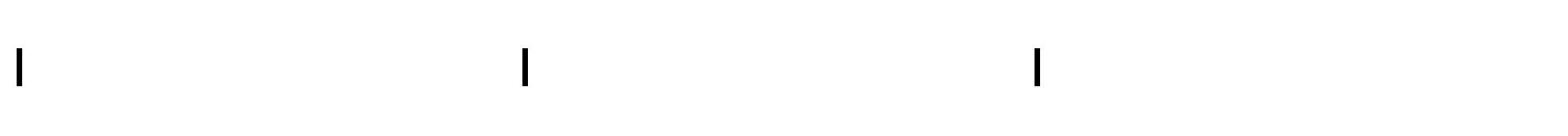
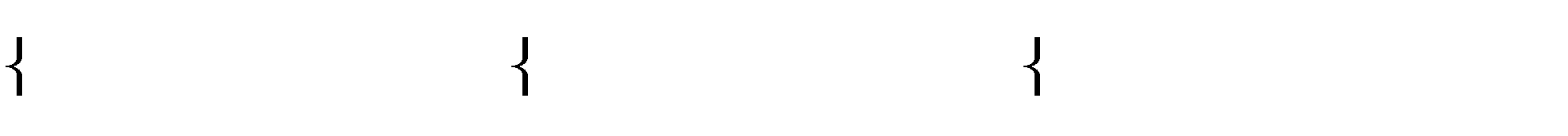
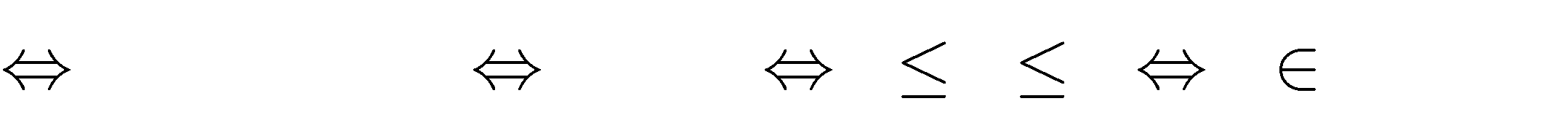
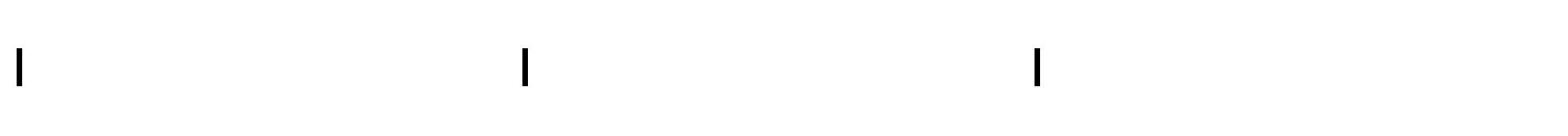
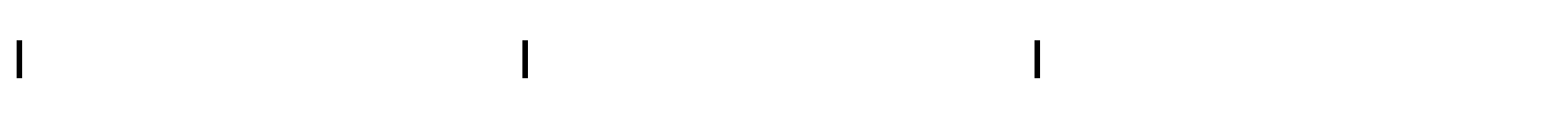
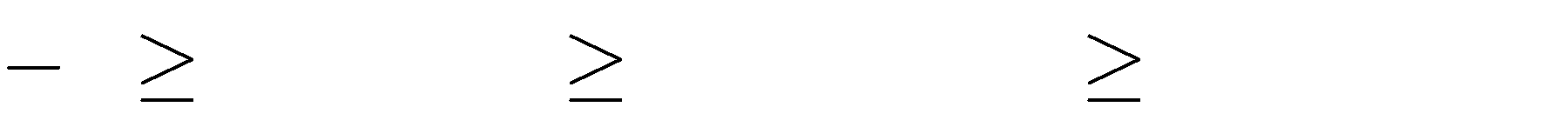
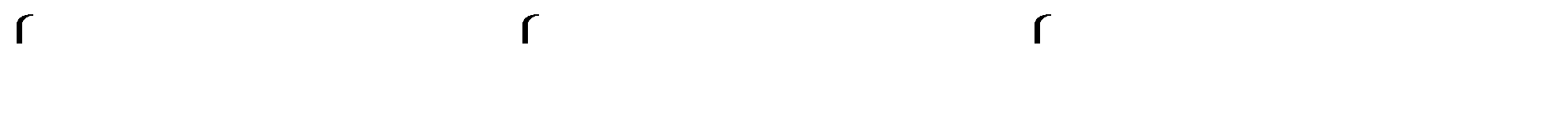
2 *y*18 2*n* ;



*y*4

# Lời giải:

Để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho biểu thức *C* thì



2*n* 6 4

18 2*n* 4

2*n* 10

2*n* 14

*n*

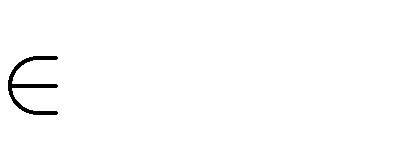
*n*

5

7

5 *n* 7 *n* 5; 6; 7

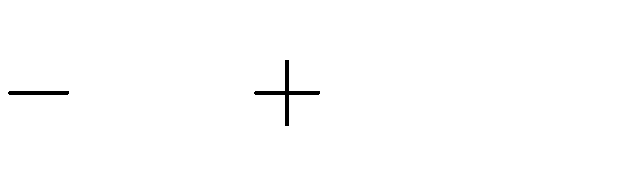
Vậy *n* thoản mãn đề bài



5; 6; 7

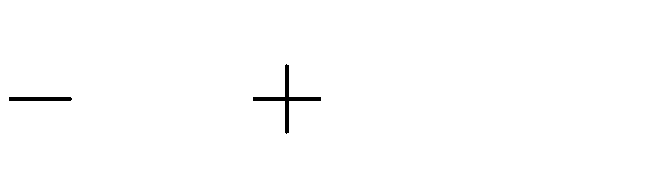
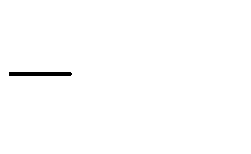
**Bài 13.** Tìm *n* để những phép tính sau là phép chia hết ( *n* là số tự nhiên)

1. 5*x*3



7*x*2 *x* : 3*xn*

1. 2 *y*4



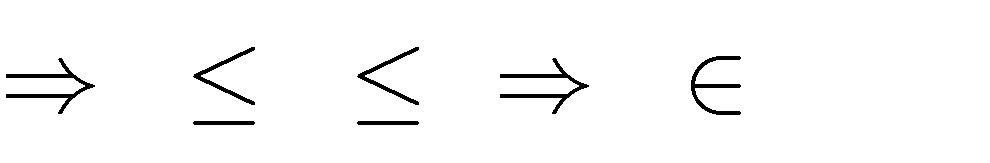
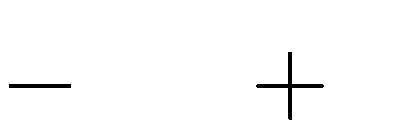
5*y*3 6 *y*2 :

1 *yn*

5

# Lời giải:

1. Vì đa thức 5*x*3



7*x*2

*x* chia hết cho 3*xn* nên hạng tử *x* chia hết cho

3*xn*

0 *n* 1 *n*

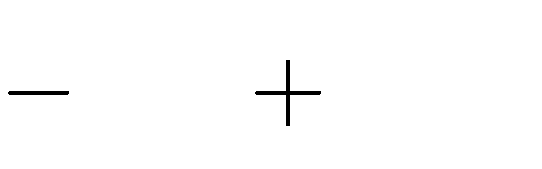
0;1

1. Vì đa thức

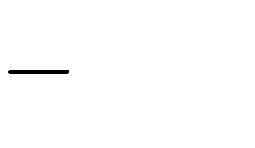
13*y*4

chia hết cho 1 *yn*

5



5 *y*3 6 *y*2

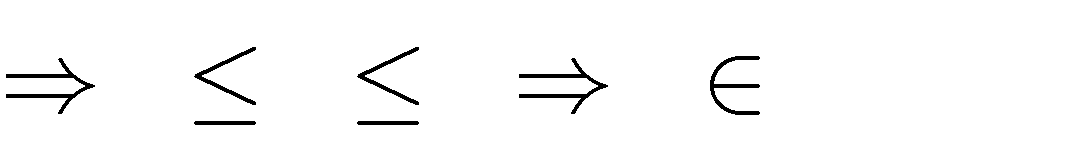
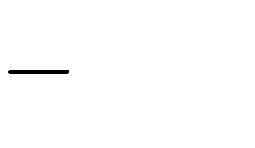


nên hạng tử

6 *y*2

chia hết cho 1 *yn*

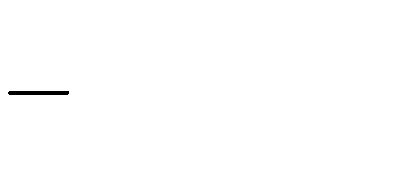
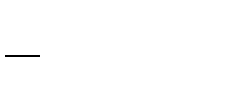
5



0 *n* 2 *n* 0;1; 2

**Bài 14.** Tìm số tự nhiên *n* để mỗi phép chia sau là phép chia hết

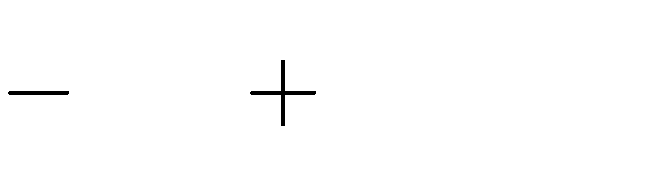
1. 4*xn* 2



5*x*3

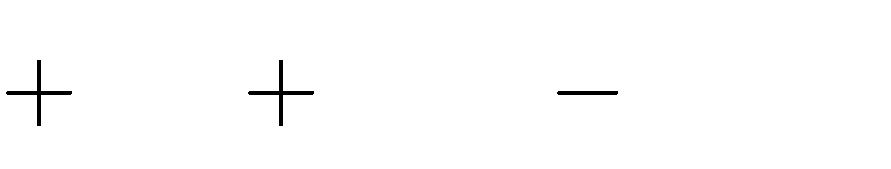
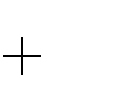
: 2*x*3

1. 2*x*4



5*x*2 *x* : 3*xn*

1. *x*4

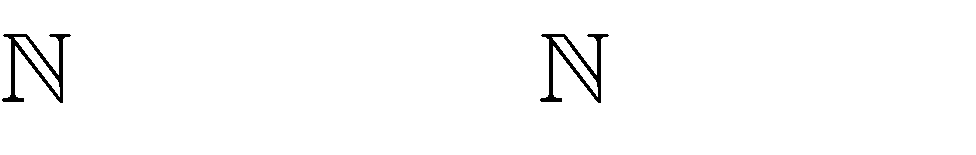
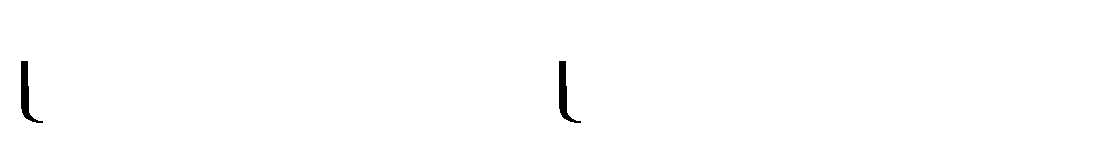
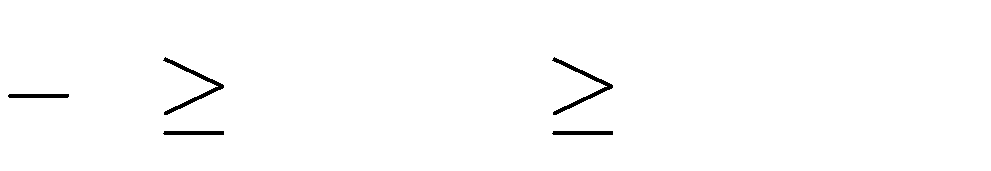
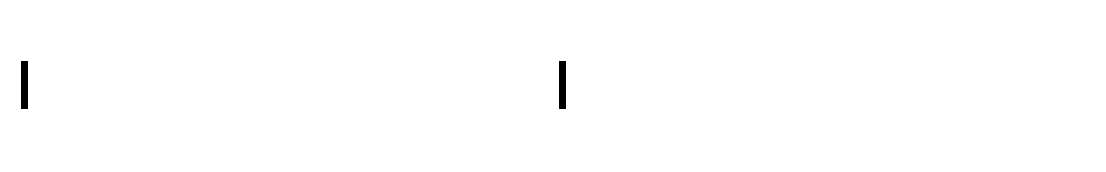
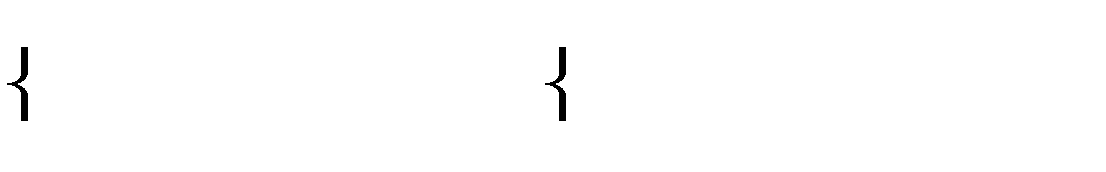
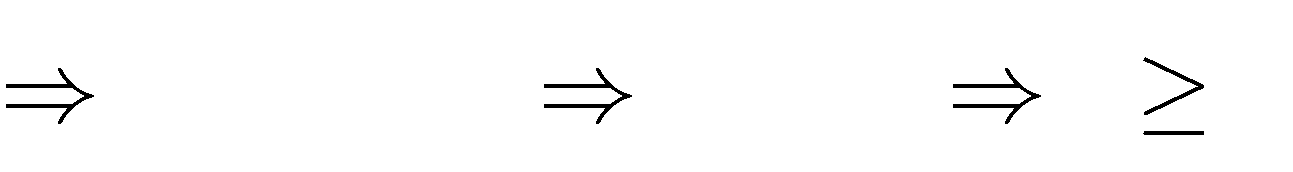
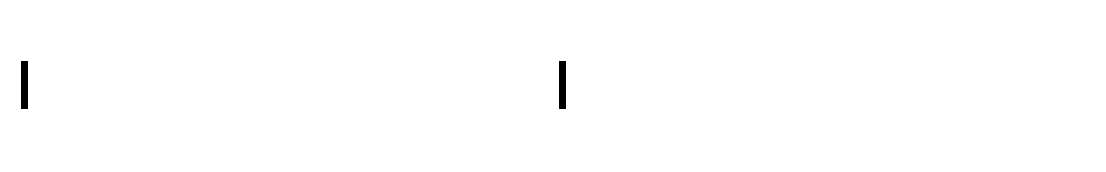
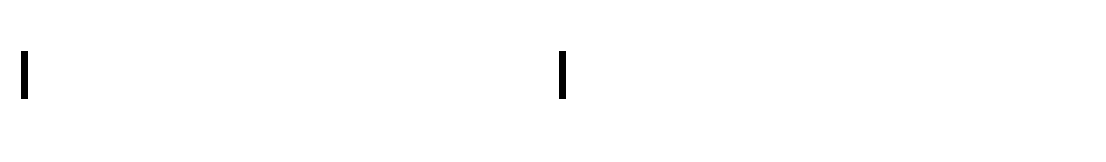
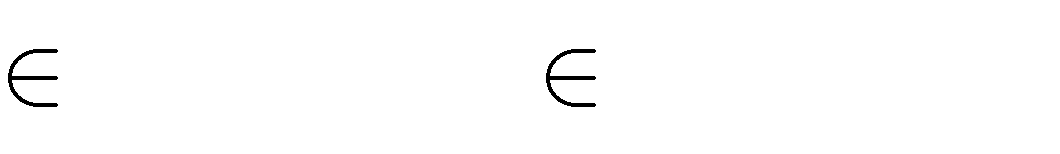
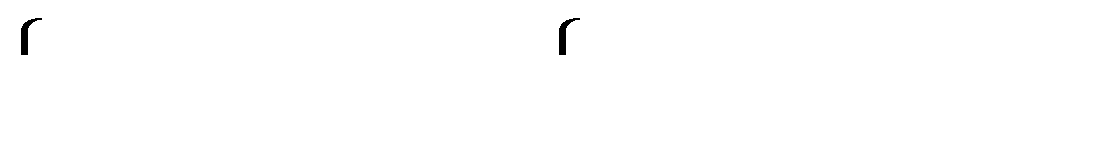
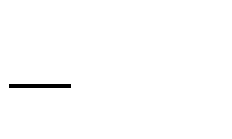
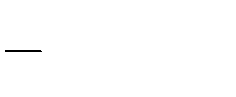


3*x*3 *x*2 :

4*xn* 1

# Lời giải:

1. Vì đa thức



4*xn* 2

5*x*3 chia hết cho

2*x*3

nên hạng tử

4*xn*



2

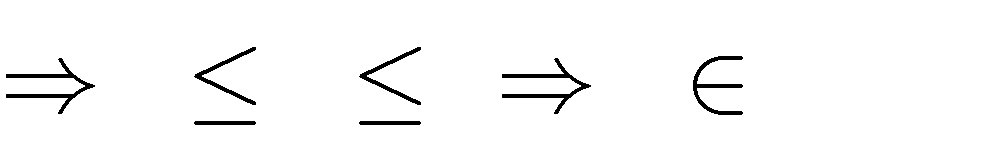
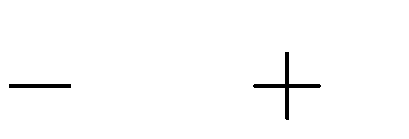
chia hết cho

2*x*3

*n n n* 5

*n* 2 3 *n* 5

1. Vì đa thức

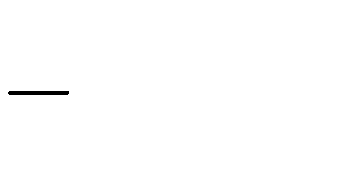
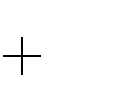


2*x*4

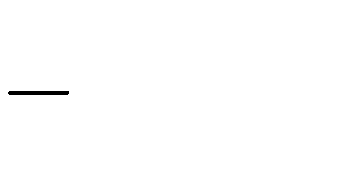
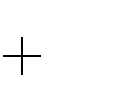
5*x*2

*x* chia hết cho 3*xn* nên hạng tử *x* chia hết cho 3*xn*

0 *n* 1 *n* 0;1

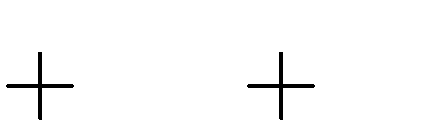


4*xn* 1



4*xn* 1

1. Vì đa thức *x*4



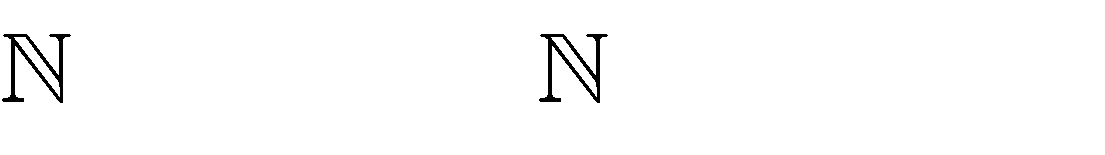
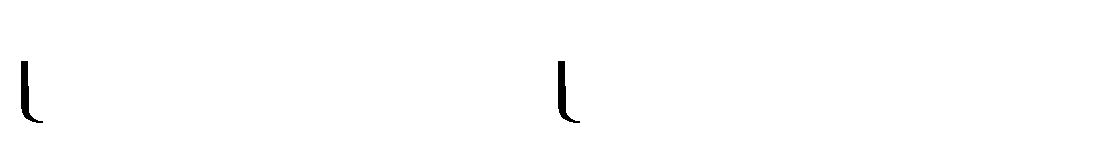
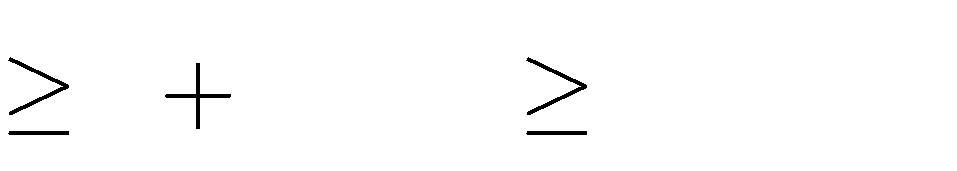
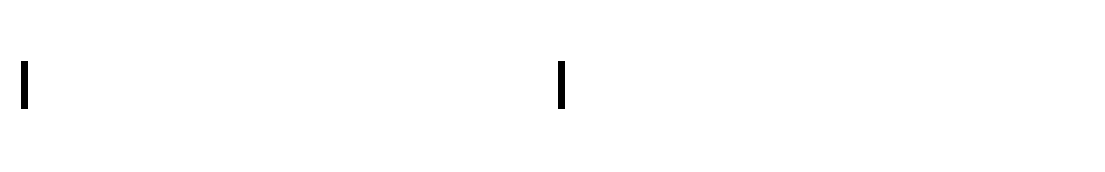
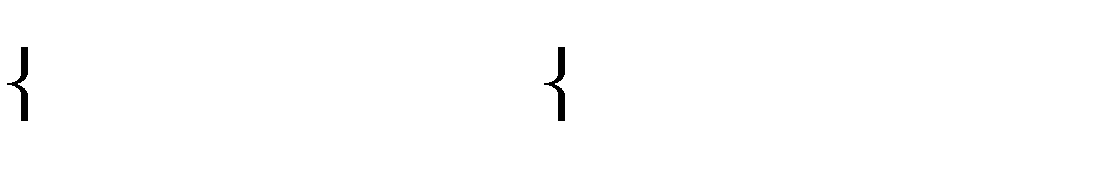
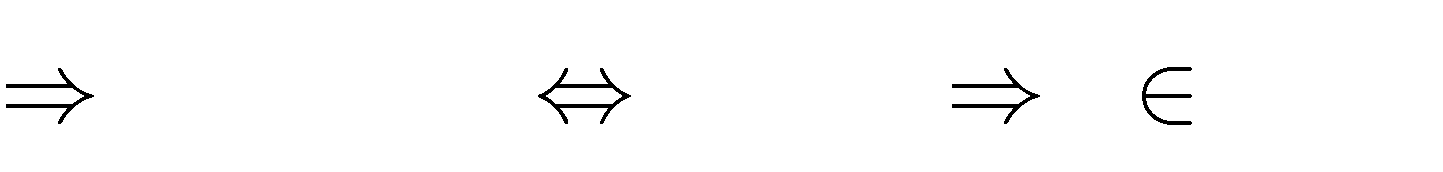
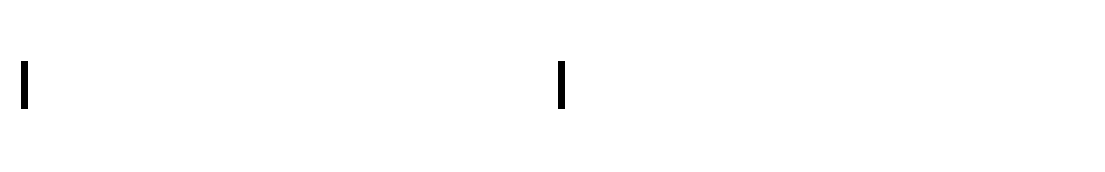
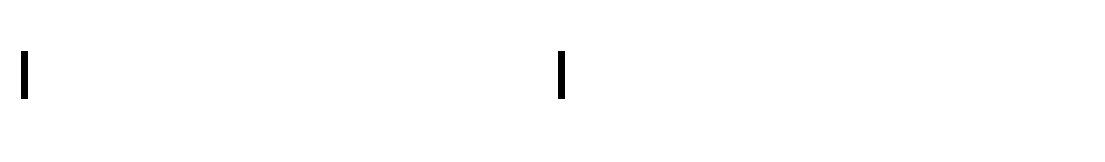
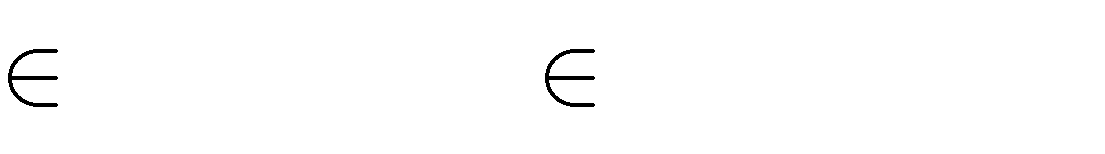
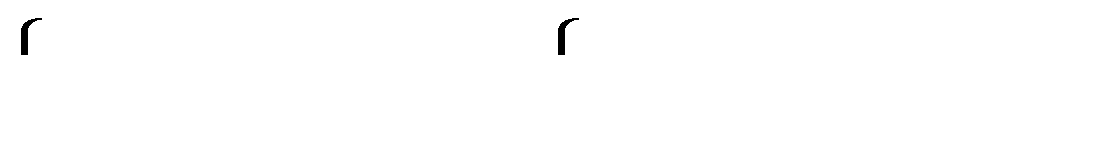
3*x*3

*x*2

chia hết cho

nên hạng tử

*x*2 chia hết cho



*n*

2 *n* 1

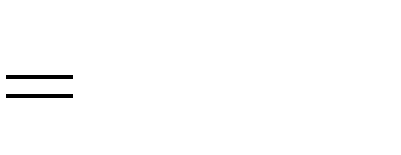
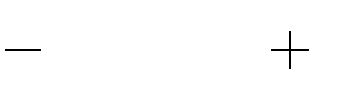
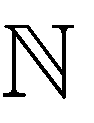
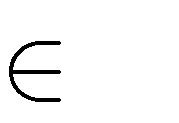
*n*

1

*n*

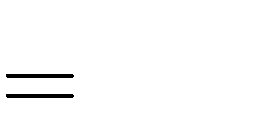
*n* 0;1

**Bài 15.** Tìm *n* để biểu thức *A*



3*xn* 1- 5*xn* 1

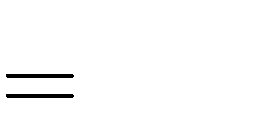
# Lời giải:

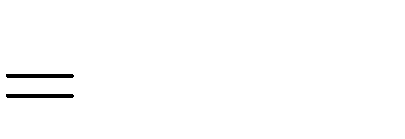
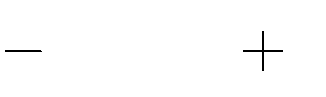


2*x*3

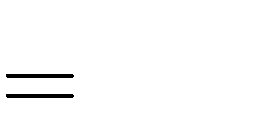
chia hết cho biểu thức *B*

2*x*3 .

Để biểu thức *A*



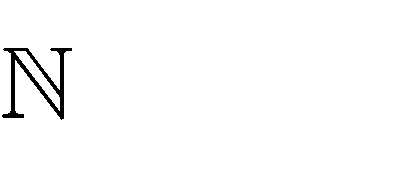
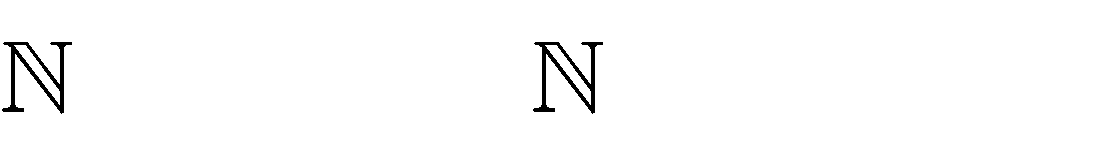
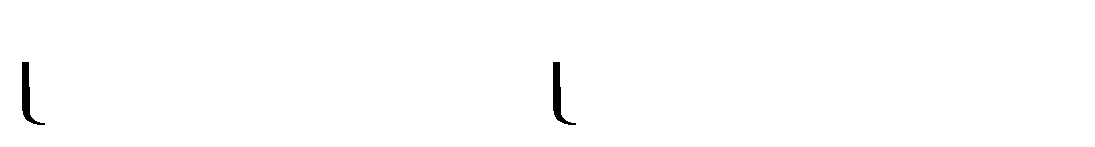
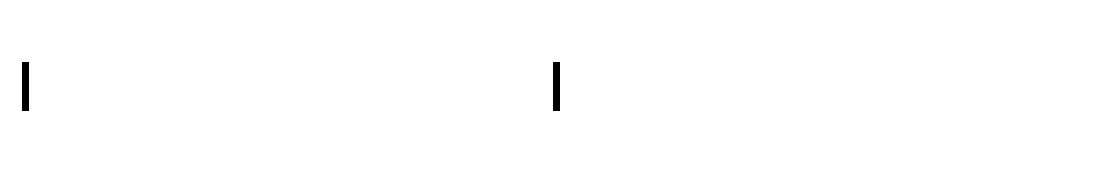
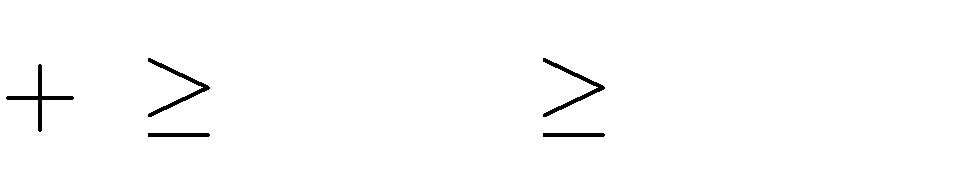
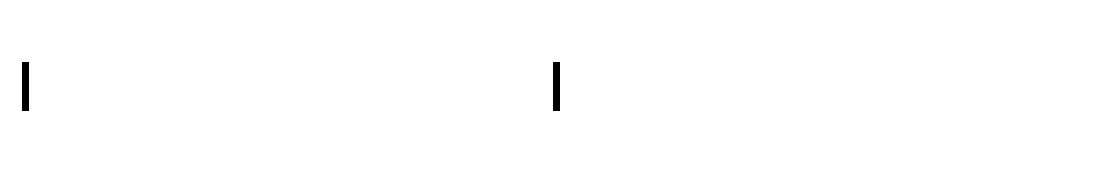
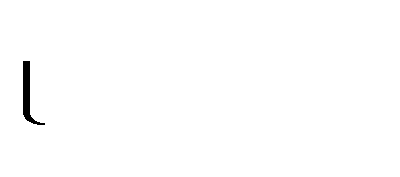
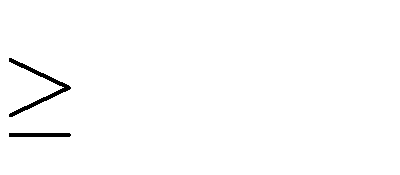
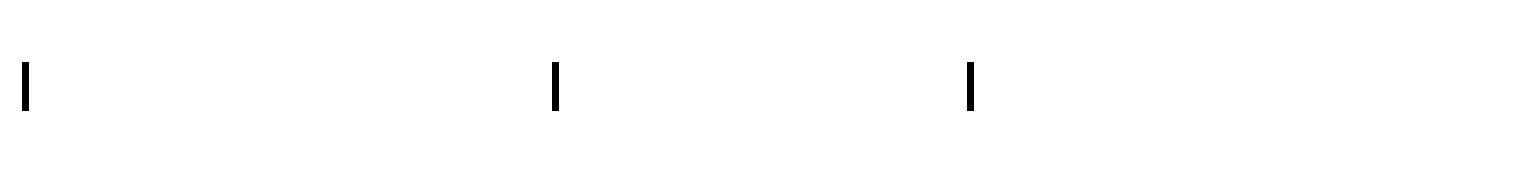
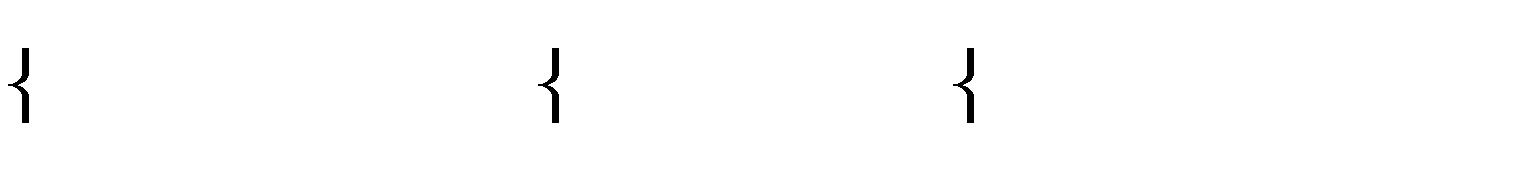
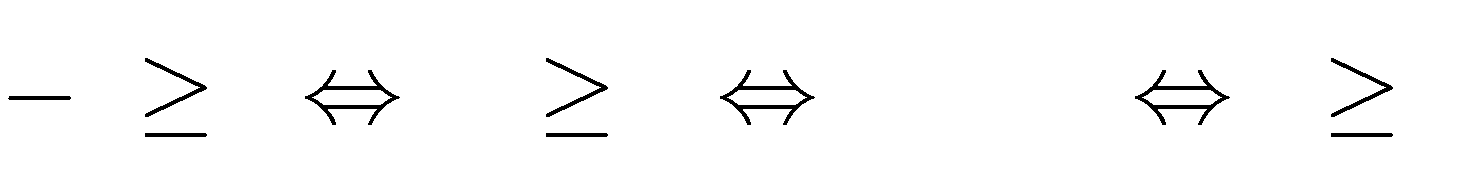
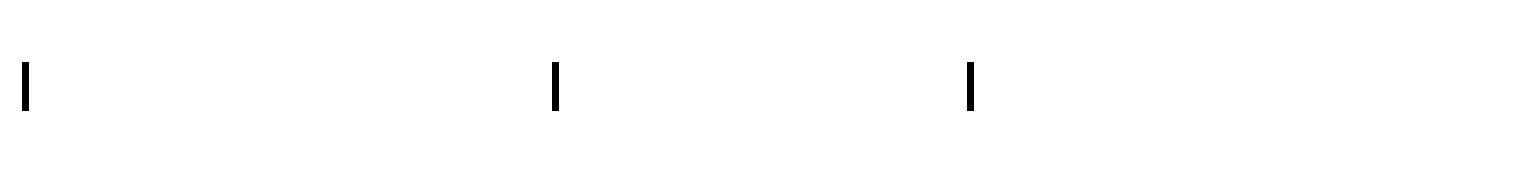
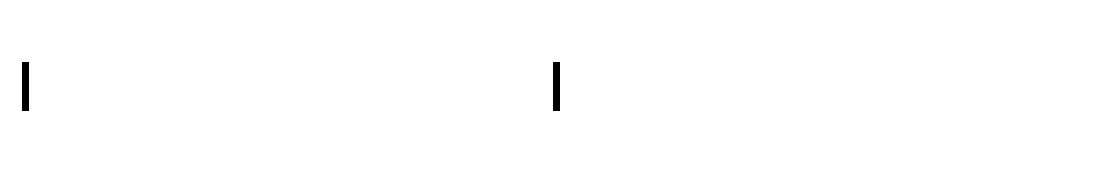
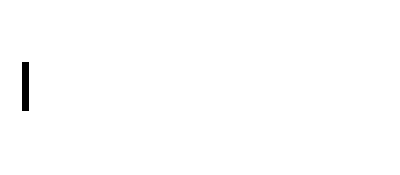
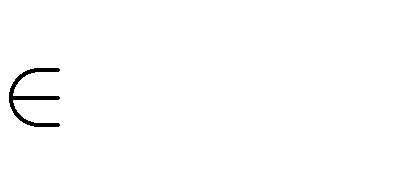
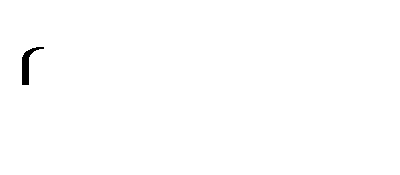
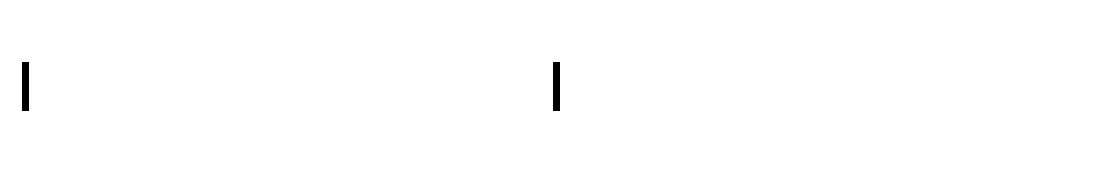
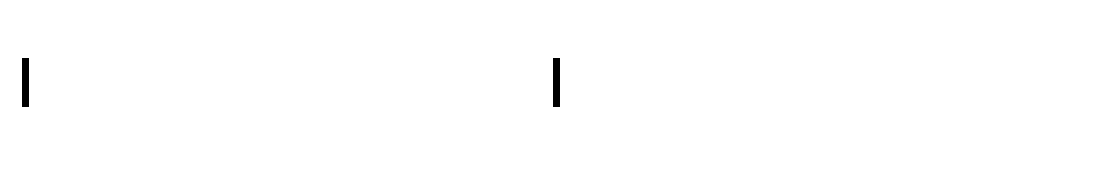
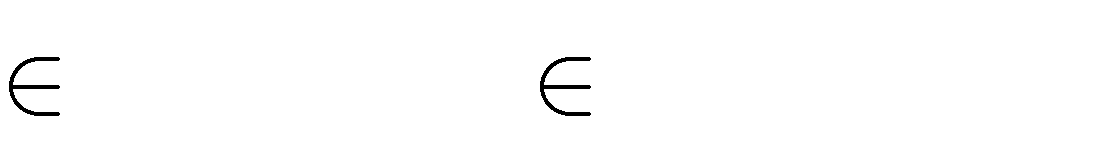
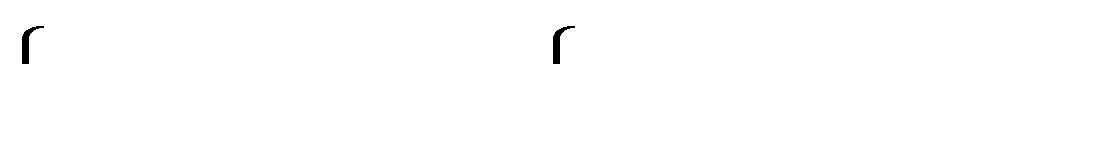
3*xn* 1-5*xn* 1



2*x*3

chia hết cho biểu thức *B*

thì



*n*

*n* 1 3

*n* 1 3

*n*

*n n*

4

2

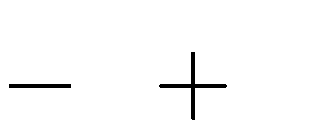
*n*

*n*

4

*n* 4

Vậy với

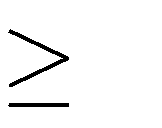


*n* 2

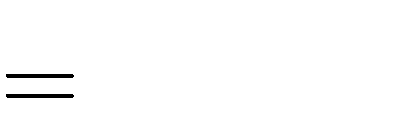
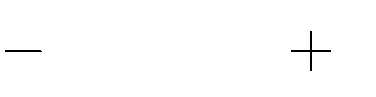
*n* thì biểu thức *A*

chia hết cho biểu thức *B*

**Bài 16.** Tìm giá trị nguyên của *n* để biểu thức



4



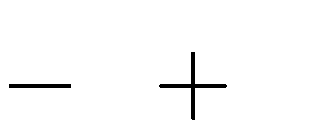
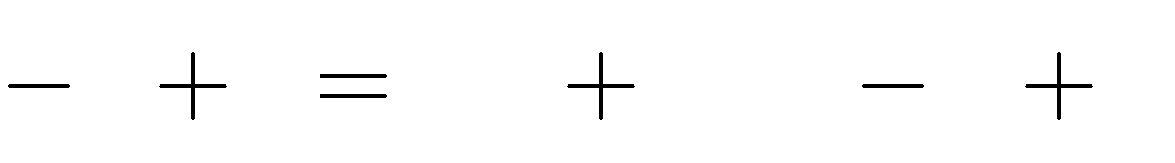
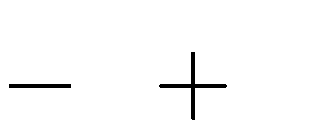
3*xn* 1- 5*xn* 1

# Lời giải:

2*n*2

chia hết cho biểu thức 2*n* 1.

Thực hiện phép chia



2*n*2

*n* 2 cho 2*n*

1, ta được :

2*n*2

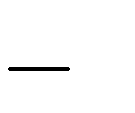
*n* 2 2*n*

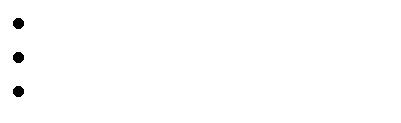
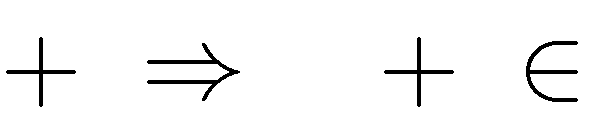
1 . *n* 1 3

Để 2*n*2

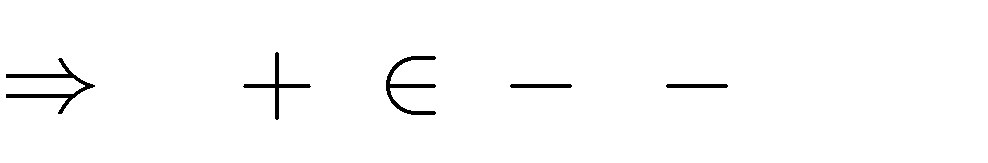
*n* 2 chia hết cho 2*n*

1 thì cần 3 Ư 3

Ta có bảng sau:



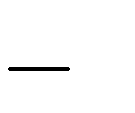
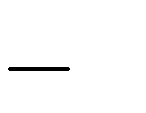
2*n* 1 2*n* 1

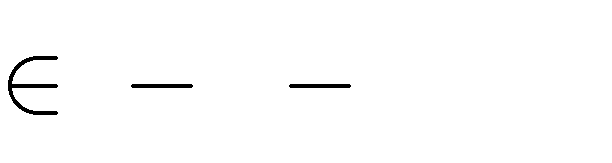


2*n* 1

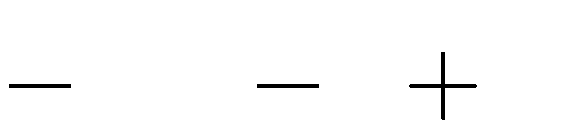
3; 1;1;3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2*n* 1 | 3 | 1 | 1 | 3 |
| *n* | 2 | 1 | 0 | 1 |

Vậy *n* thỏa mãn điều kiện đầu bài.



2; 1; 0;1



4*n*2 *n* 4

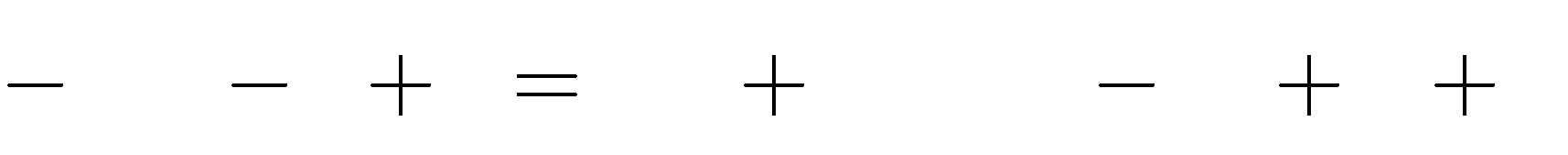
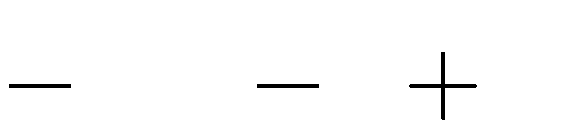
**Bài 17.** Tìm giá trị nguyên của *n* để biểu thức

4*n*3

chia hết cho biểu thức 2*n* 1.

# Lời giải:

Thực hiện phép chia



4*n*3

4*n*2

*n* 4 cho 2*n*

1, ta được :

4*n*3

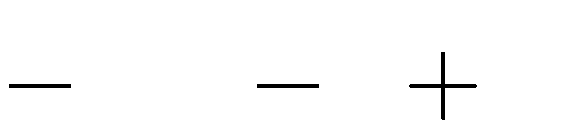
4*n*2

*n* 4 2*n*

1 . 2*n*2

3*n* 1 3

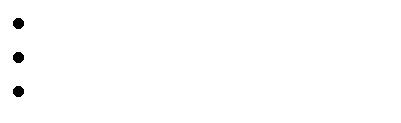
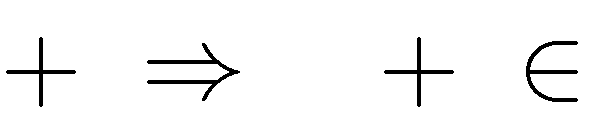
Để 4*n*3 chia hết cho 2*n* thì cần 3 Ư 3



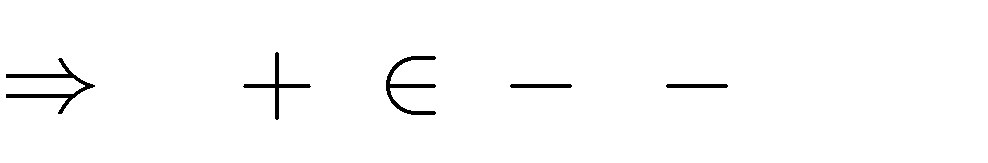
4*n*2 *n* 4



1

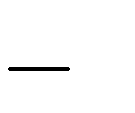


2*n* 1 2*n* 1

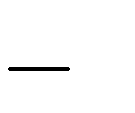
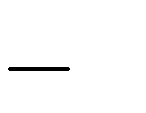


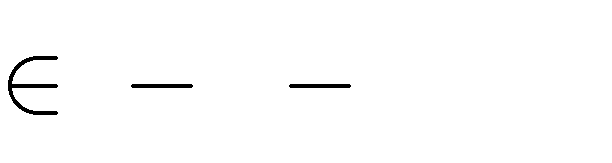
2*n* 1

3; 1;1;3

Ta có bảng sau:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2*n* 1 | 3 | 1 | 1 | 3 |
| *n* | 2 | 1 | 0 | 1 |

Vậy *n* thỏa mãn điều kiện đầu bài.



2; 1; 0;1

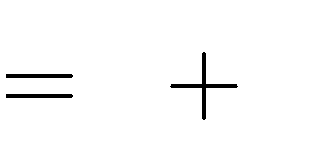
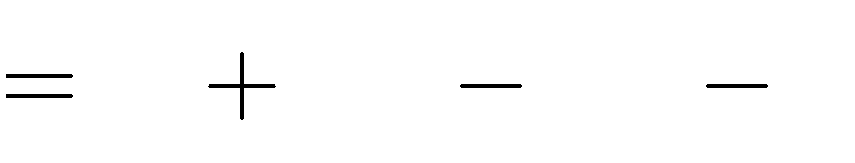
**Bài 18.** Tìm giá trị nguyên của *x* để biểu thức

1. *x x*3

4*x*2

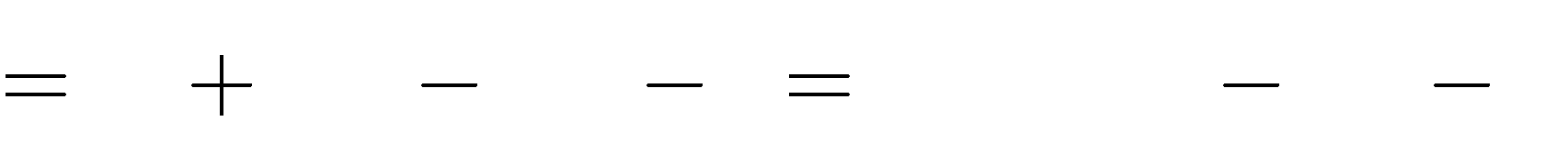
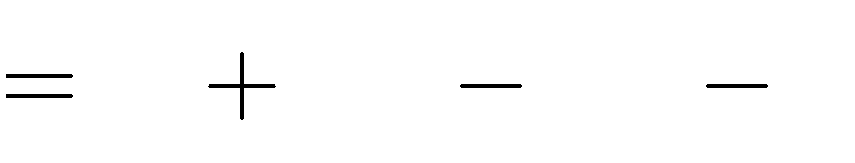
21*x*

7 chia hết cho biểu thức

1. *x x* 7 .

# Lời giải:

Thực



hiện phép chia *f x*

*x*3

4*x*2 21*x* 7

*x*3

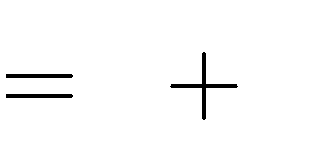
4*x*2

21*x* 7 *g x* . *x*2 3*x* 7

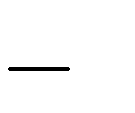
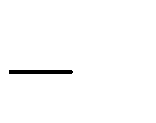
*f x*

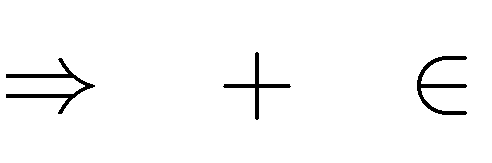
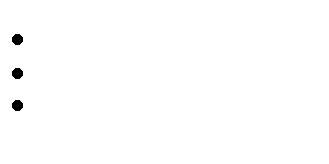
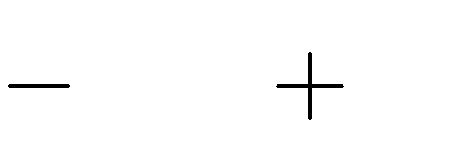
cho *g x*

ta được:



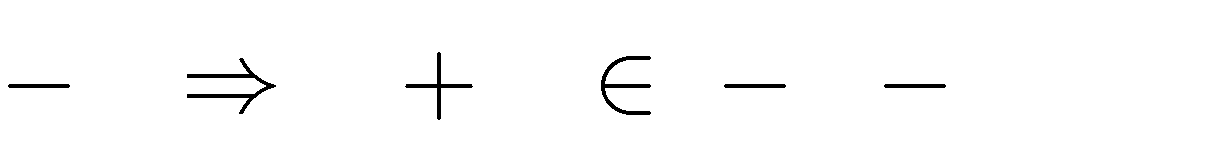
*x* 7

Để *f x* chia hết cho *g x* thì cần Ư Ta có bảng sau:



7 *x* 7

*x* 7

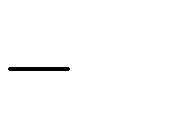


7

*x* 7

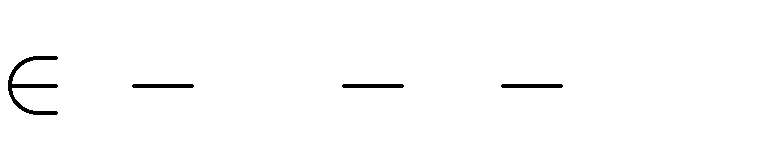
7; 1;1; 7

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x* 7 | 7 | 1 | 1 | 7 |
| *x* | 14 | 8 | 6 | 0 |



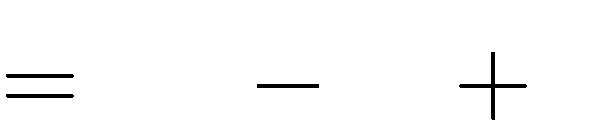
Vậy *x* thỏa mãn điều kiện đầu bài.

**Bài 19.** Tìm giá trị nguyên của *x* để đa thức *A* chia hết cho *B*



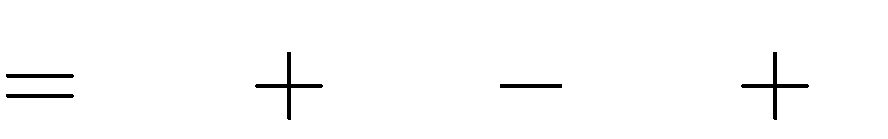
14; 8; 6; 0

1. *A*



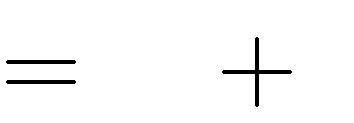
8*x*2 4*x* 1

1. *A*



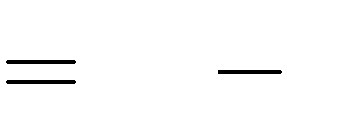
3*x*3 8*x*2 15*x* 6

và *B*



2*x* 1

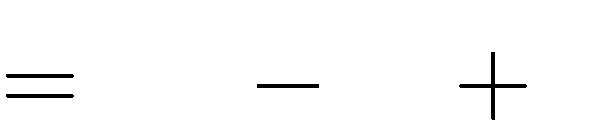
và *B*



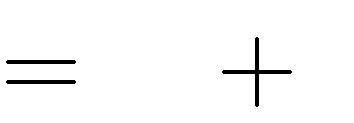
3*x* 1

# Lời giải:

1. *A* và *B*

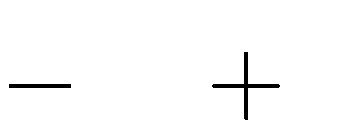


8*x*2 4*x* 1



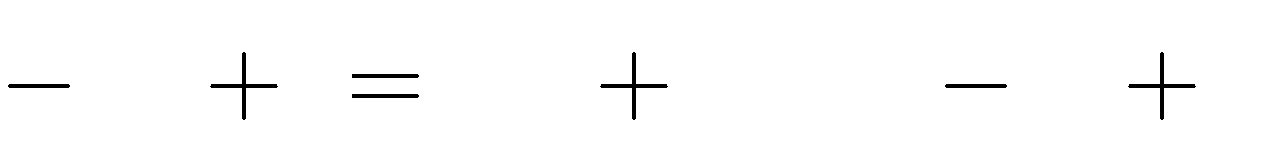
2*x* 1

Thực hiện phép chia 8*x*2



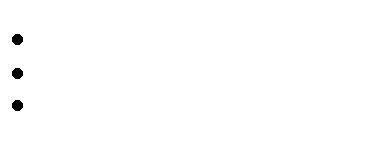
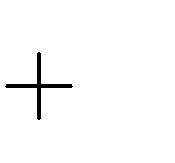
4*x* 1

8*x*2



4*x* 1 2*x* 1 . 4*x* 4 5

Để *A* chia hết cho *B* cần 5



2*x* 1

2*x* 1

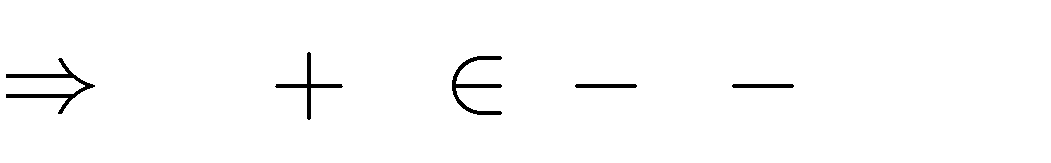
Ta có bảng sau:

cho 2*x* ta được:

Ư 5



1

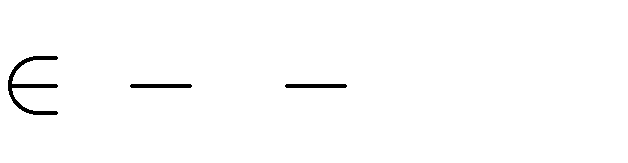


2*x* 1

5; 1;1;5

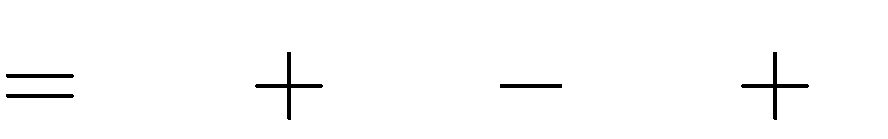
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2*x* 1 | -5 | -1 | 1 | 5 |
| *x* | -3 | -1 | 0 | 2 |

Vậy *x* thỏa mãn điều kiện đề bài.

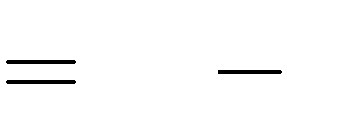


3, 1, 0, 2

1. *A* và *B*

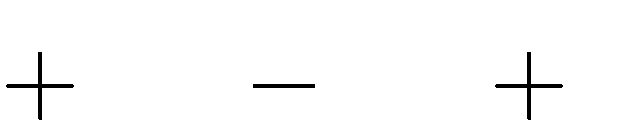


3*x*3 8*x*2 15*x* 6



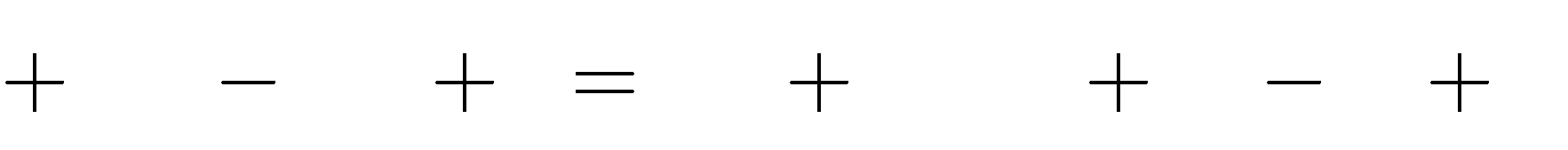
3*x* 1

Thực hiện phép chia 3*x*3



8*x*2 15*x* 6

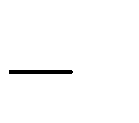
3*x*3



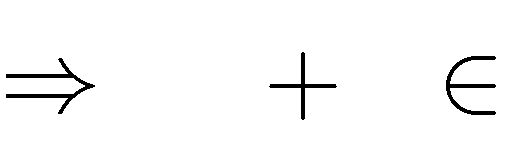
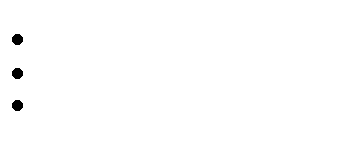
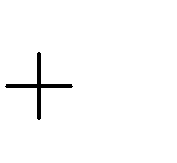
8*x*2 15*x* 6 3*x* 1 . *x*2 3*x* 4 2

cho 3*x* ta được:

Để *A* chia hết cho *B* cần 2 Ư 2

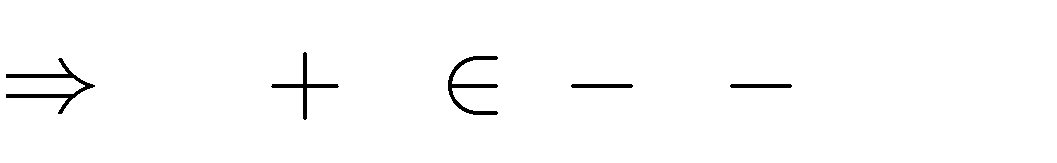


1



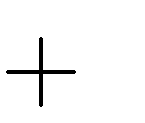
3*x* 1

3*x* 1



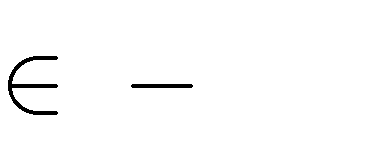
3*x* 1

2; 1;1; 2

Ta có bảng sau:

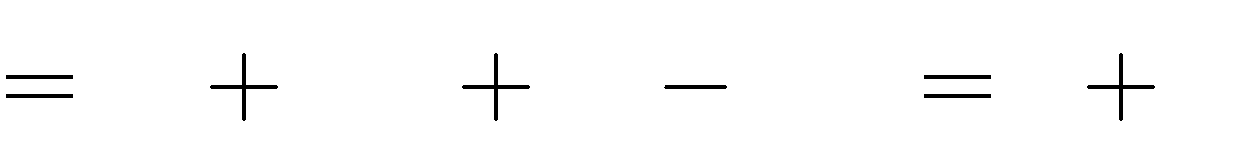
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3*x* 1 | -2 | -1 | 1 | 2 |
| *x* | -1 | -2  3  (loại) | 0 | 1  3  (loại) |

Vậy *x* thỏa mãn điều kiện đề bài.



1; 0

**Bài 20.** Cho các đa thức sau: *A*



*x*3

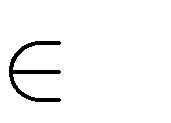
4*x*2

3*x* 7; *B x* 4

1. Tính

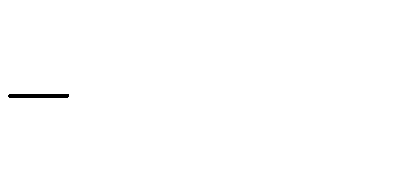
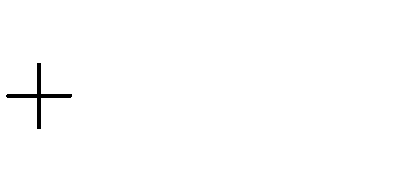
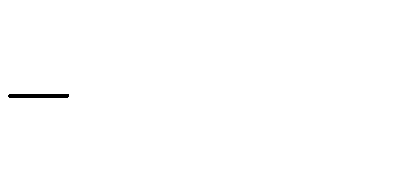
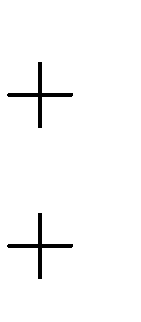
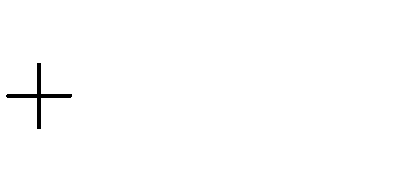
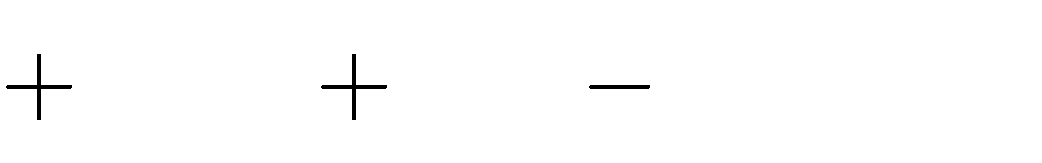
*A* : *B*

1. Tìm *x* sao cho *A* chia hết cho *B*



# Lời giải:

a)



*x*3

*x*3

4*x*2

4*x*2

3*x*

7

*x x* 2

4

3

3*x*

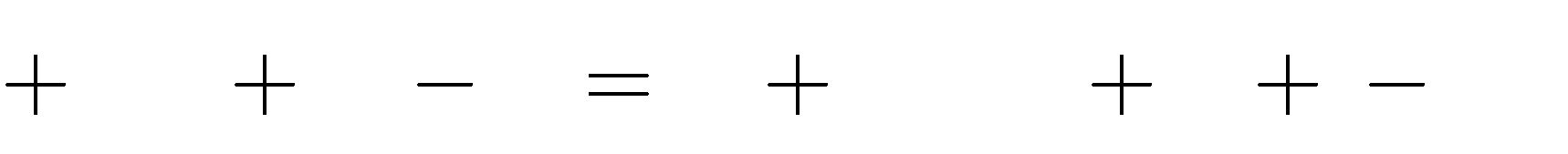
3*x*

7

12

19

Vậy *x*3



4*x*2 3*x* 7

*x* 4 . *x*2 3

19

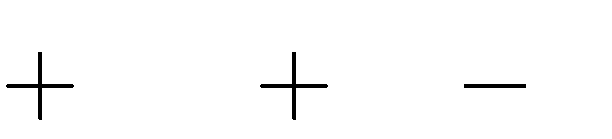


4

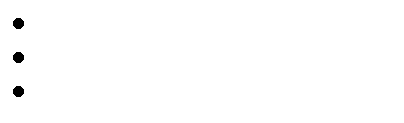
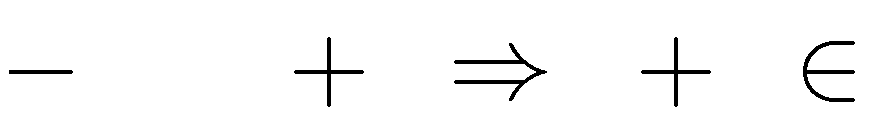
b) Để *x*3

chia hết cho

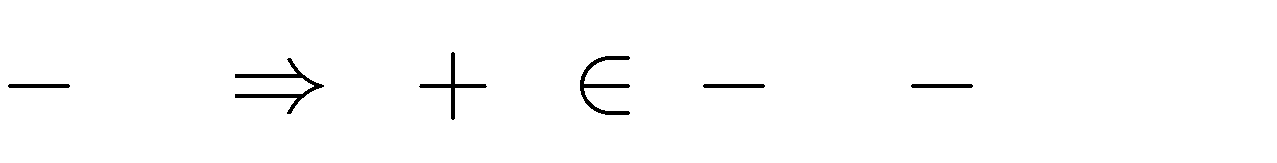
Ư



4*x*2 3*x* 7



19 *x* 4 *x* 4



19

*x* 4

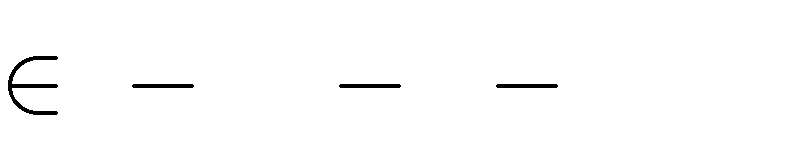
19; 1;1;19

*x* thì

Ta có bảng sau:

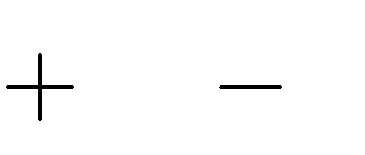
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *x* 4 | -19 | -1 | 1 | 19 |
| *x* | -23 | -5 | -3 | 15 |

Vậy *x* thỏa mãn điều kiện đề bài.



23, 5, 3,15

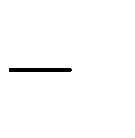
# Dạng 3. Vận dụng phép chia đa thức một biến vào bài toán ứng dụng



4 *y* 3

**Bài 1.** Tính chiều dài của hình chữ nhật có diện tích bằng

2 *y* cm .



1

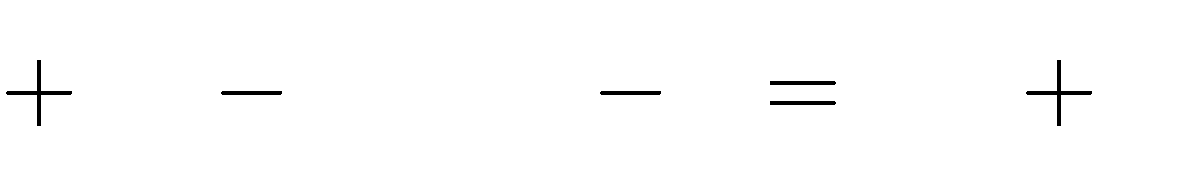
# Lời giải:

4 *y*2

cm2

và chiều rộng

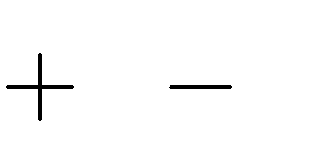
Chiều dài của một hình chữ nhật là: 4 *y*2 cm



4 *y* 3 : 2 *y* 1

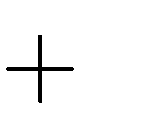
2 *y* 3

**Bài 2.** Tính chiều rộng của một hình chữ nhật có diện tích bằng



*y* 2

3*y* cm



2

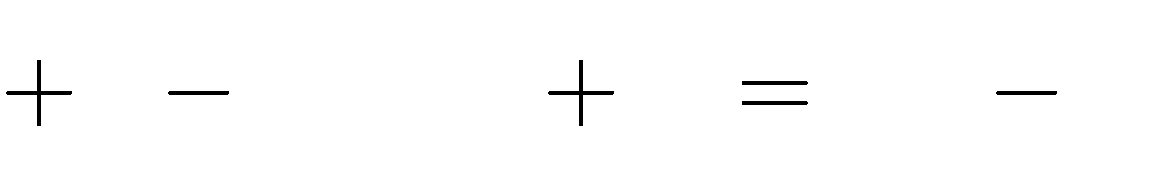
# Lời giải:

6 *y*2

cm2

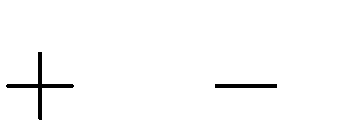
và chiều dài

Chiều rộng của một hình chữ nhật là: 6 *y*2 cm



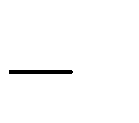
*y* 2 : 3*y* 2

2 *y* 1



7*x* 3

**Bài 3.** Tính chiều dài của một hình chữ nhật có diện tích bằng rộng 3*x* cm



1

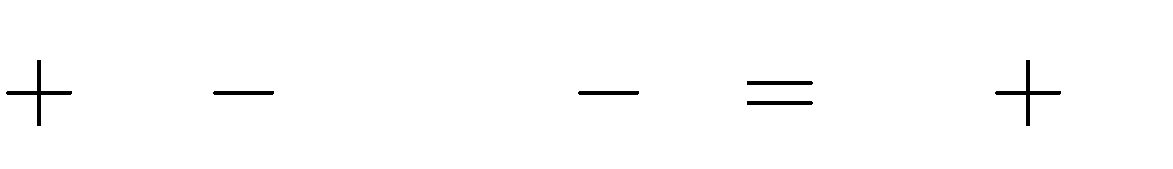
# Lời giải:

6*x*2

cm2

và chiều

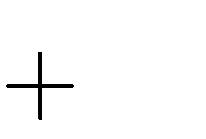
Chiều dài của một hình chữ nhật là: 6*x*2 cm



7*x* 3 : 3*x* 1

2*x* 3

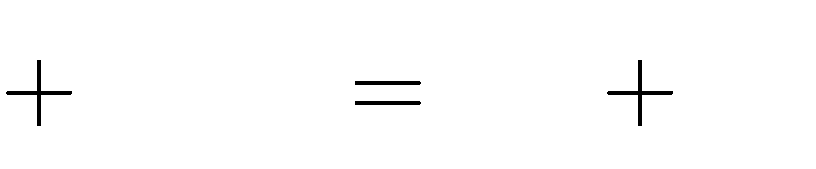
**Bài 4.** Tìm cạnh của một hình vuông biết chu vi của hình vuông là 12*x*2 cm



8*x*

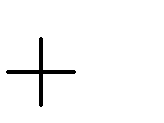
# Lời giải:

Cạnh của hình vuông là: 12*x*2 cm



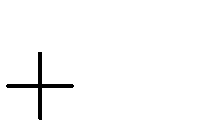
8*x* : 4 3*x*2 2*x*

**Bài 5.** Tính chiều cao ứng với cạnh đáy dài 2*x* cm của một tam giác với diện tích là



4

3*x*2

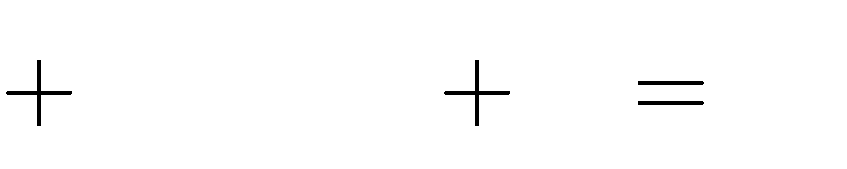


6*x*

# Lời giải:

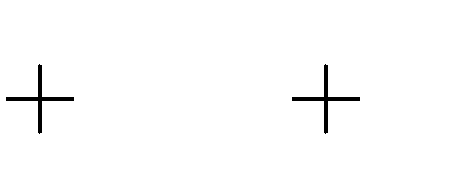
cm2

Chiều cao ứng với cạnh đáy của một tam giác là 2. 3*x*2 cm



6*x* : 2*x* 4 3*x*

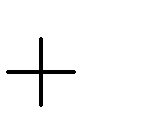
**Bài 6.** Tính cạnh đáy của một tam giác với diện tích là 15*x*2



23 *x* 3

2 2

tam giác là 5*x* cm



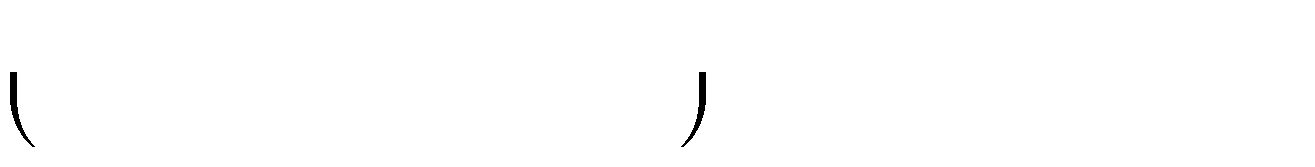
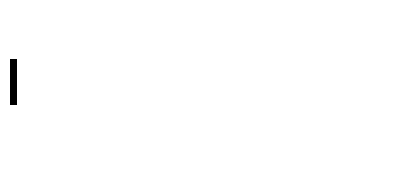
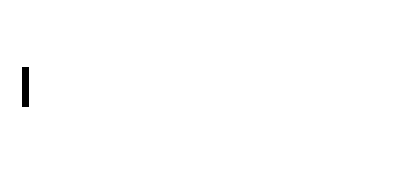
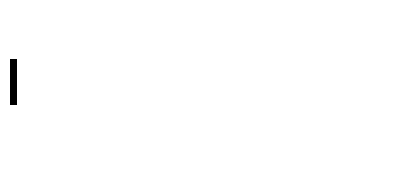
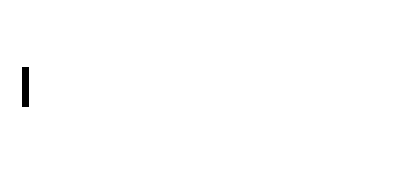
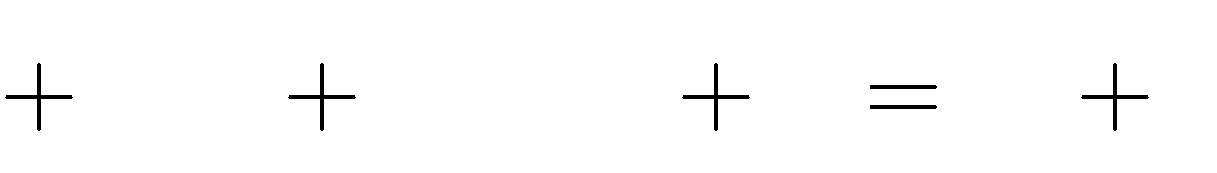
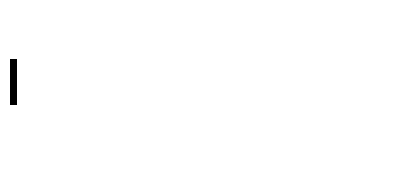
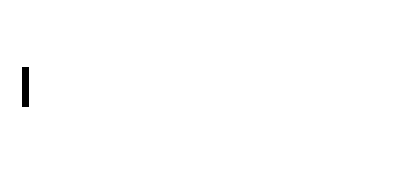
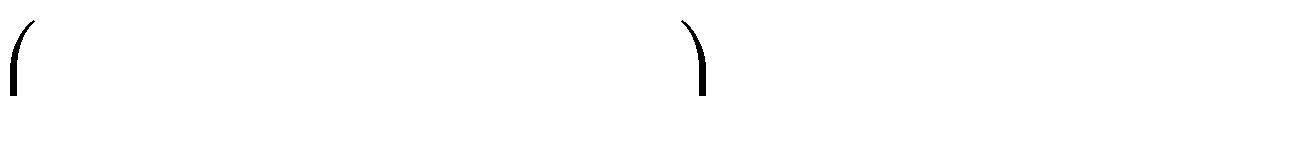
3

# Lời giải:

cm2

và chiều cao của

Cạnh đáy của một tam giác là: 2. cm



15*x*2

23 *x*

2

3 : 5*x*

2

3

6*x* 1

**Bài 7.** Quang có 3 túi bi, mỗi túi có 6*x*3 15*x*2 12*x*  3

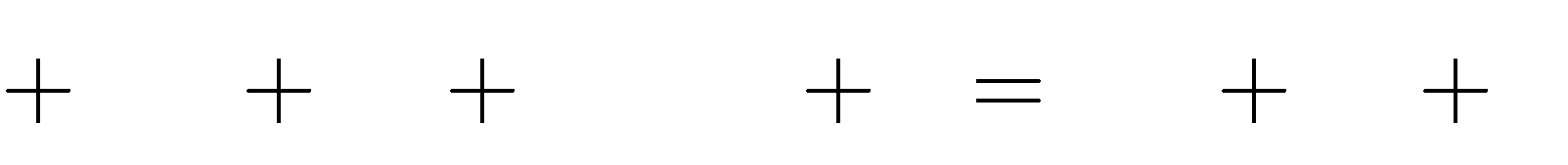
viên bi. Quang muốn chia đều tất cả

số bi này vào 2*x* 1

# Lời giải:

chiếc hộp. Hỏi mỗi hộp có bao nhiêu viên bi.

Mỗi túi có số viên bi là: 3. 2*x*3 (viên bi)



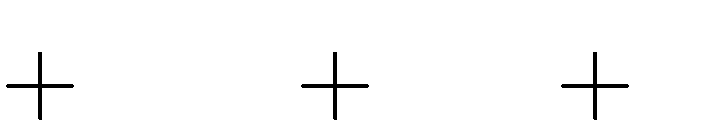
5*x*2 4*x* 1 : 2*x* 1 3*x*2 6*x* 3

**Bài 8.** Tìm tổng hai đáy của một hình thang biết diện tích của hình thang là



3

5*x*3



21*x*2 20*x* 6

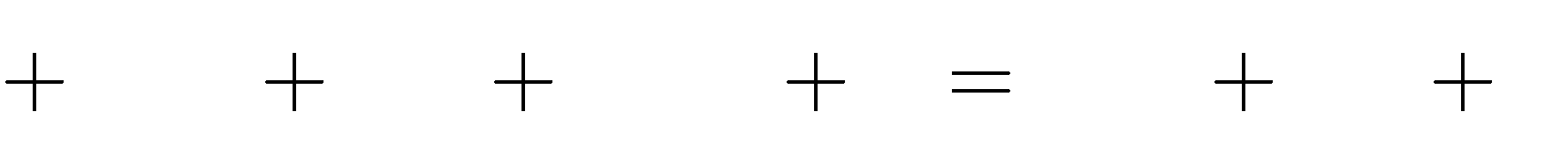
# Lời giải:

cm2

và chiều cao của hình thang là

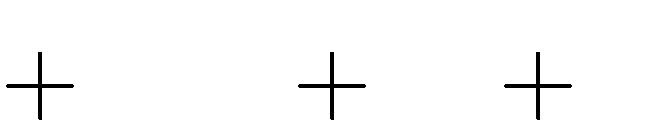
*x* cm .

Tổng hai đáy của hình thang là: 2. 5*x*3 cm



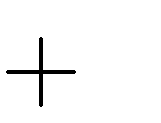
21*x*2 20*x* 6 : *x* 3 10*x*2 12*x* 4

**Bài 9.** Tính chiều cao của một hình thang biết diện tích hình thang là 3*x*3 cm2

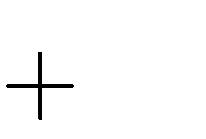


10*x*2 9*x* 2

; đáy bé và đáy lớn của hình thang lần lượt là 3*x* cm ; 6*x*2 cm .



2

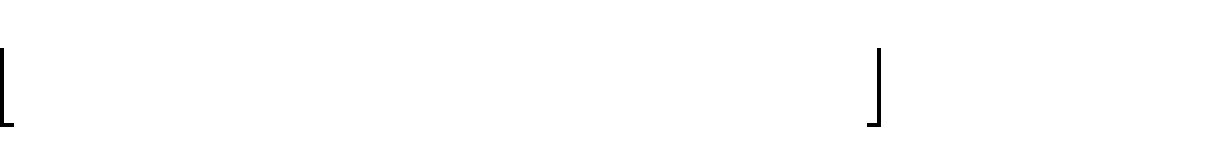
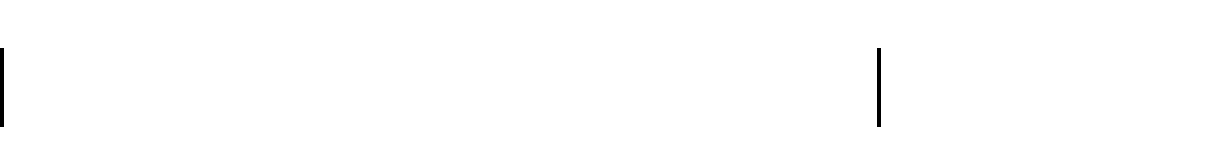
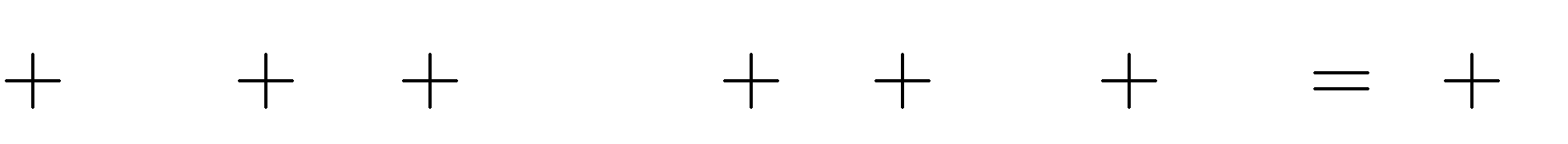
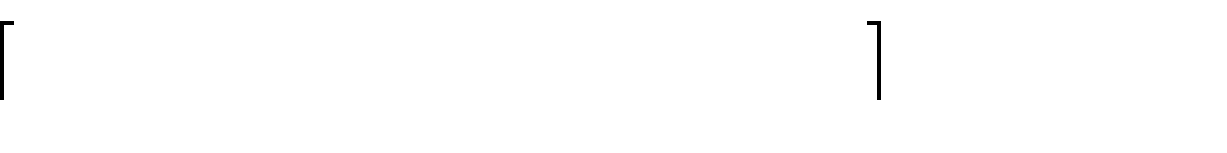


5*x*

# Lời giải:

Chiều cao của hình thang là:

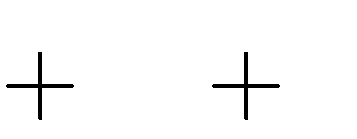
1. 3*x*3 cm



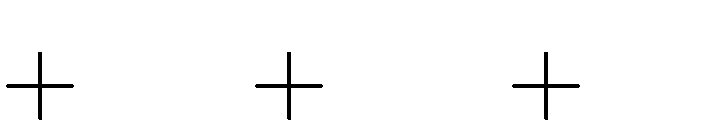
10*x*2 9*x* 2 : 3*x* 2 6*x*2 5*x*

*x* 2

**Bài 10.** Tính chiều cao của một hình hộp chữ nhật có diện tích đáy bằng *x*2 cm và



5*x* 3



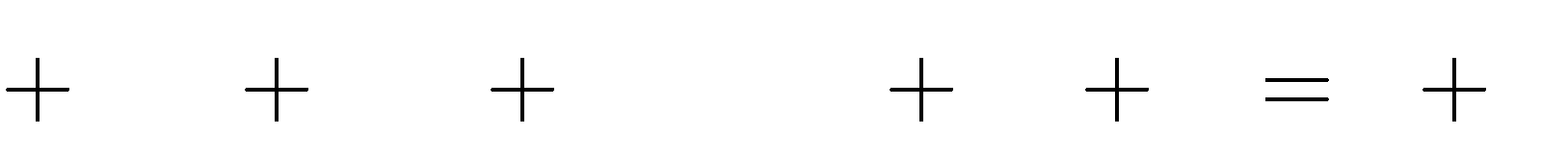
9*x*2 23*x* 12

có thể tích bằng *x*3

# Lời giải:

cm3 .

Chiều cao của hình hộp chữ nhật là: *x*3 cm

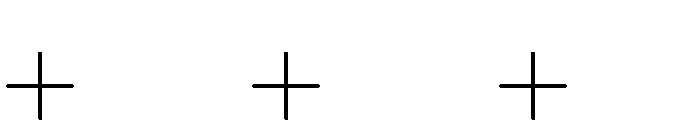


9*x*2 23*x* 12 : *x*2 5*x* 3 *x* 4

**Bài 11.** Tính diện tích đáy của một hình hộp chữ nhật có chiều cao bằng *x* cm và có thể



3



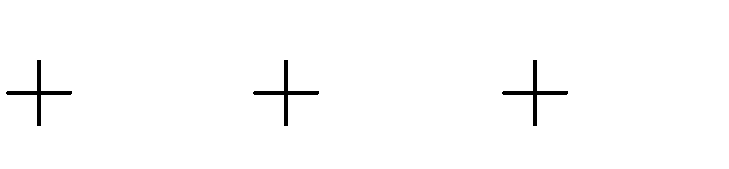
8*x*2 19*x* 12

tích bằng *x*3

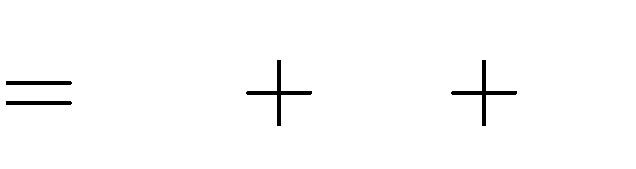
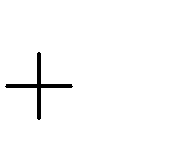
# Lời giải:

cm3 .

Diện tích đáy của một hình hộp chữ nhật là: *x*3 : *x* cm2



8*x*2 19*x* 12



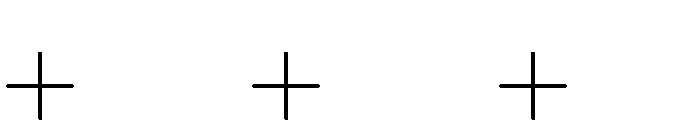
3

*x*2

5*x*

4

**Bài 12.** Một hình hộp chữ nhật có thể tích là *x*3 (cm3). Biết đáy là hình chữ



8*x*2 19*x* 12



3



4

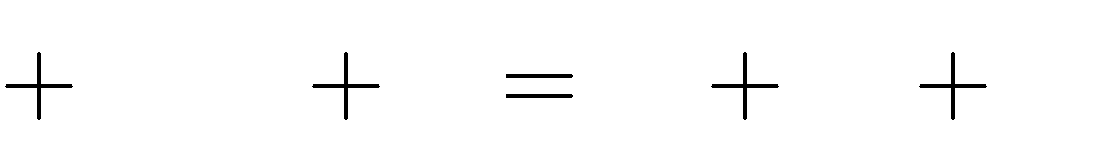
nhật có các kích thước theo *x*

# Lời giải:

*x* cm và

*x* cm . Tính chiều cao của hình hộp chữ nhật đó

Diện tích đáy của hình hộp chữ nhật là: *x* cm2

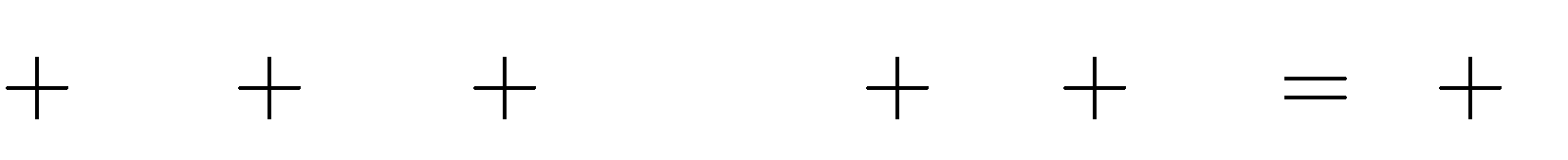


3 . *x* 4

*x*2

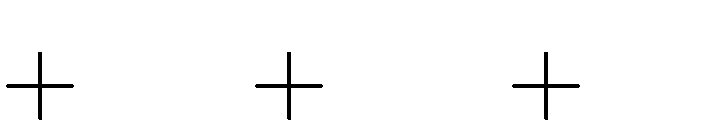
7*x* 12

Chiều cao của hình hộp chữ nhật là: *x*3 cm

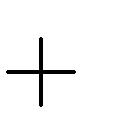


8*x*2 19*x* 12 : *x*2 7*x* 12 *x* 1

**Bài 13.** Một hình hộp chữ nhật có thể tích là *x*3



9*x*2 23*x* 15



1

cm3

, chiều cao là

*x* cm

; chiều rộng là

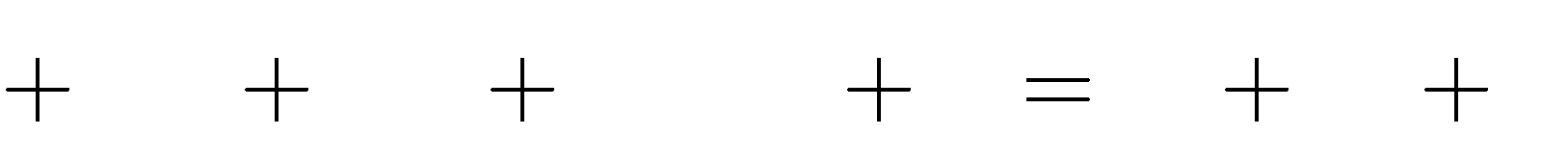


3

# Lời giải:

*x* cm . Tính chiều dài của hình hộp chữ nhật.

Diện tích đáy của hình hộp chữ nhật là: *x*3 cm2

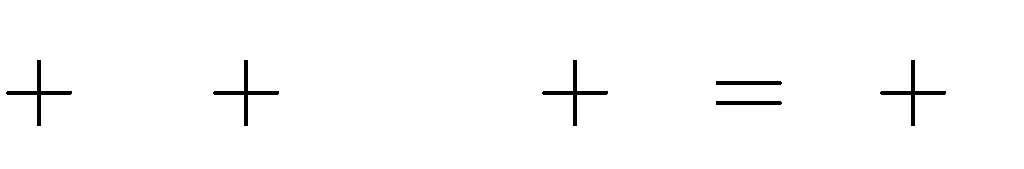


9*x*2 23*x* 15 : *x* 3

*x*2

6*x* 5

Chiều dài của hình hộp chữ nhật là: *x*2 cm



6*x* 5 : *x* 1 *x* 5

**Bài 14.** Một hình hộp chữ nhật có thể tích là



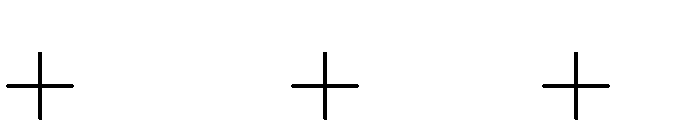
3

2*x*3

cm3

. Biết đáy là hình chữ

nhật có các kích thước 2*x* cm và theo *x*



11*x*2 17*x* 6

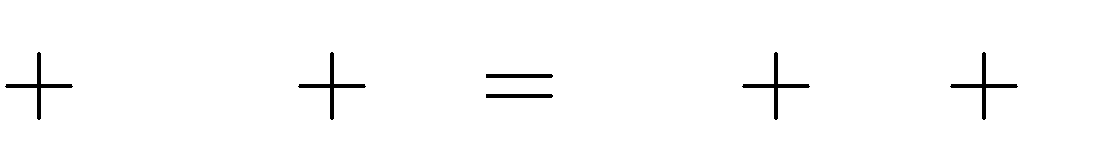


1

# Lời giải:

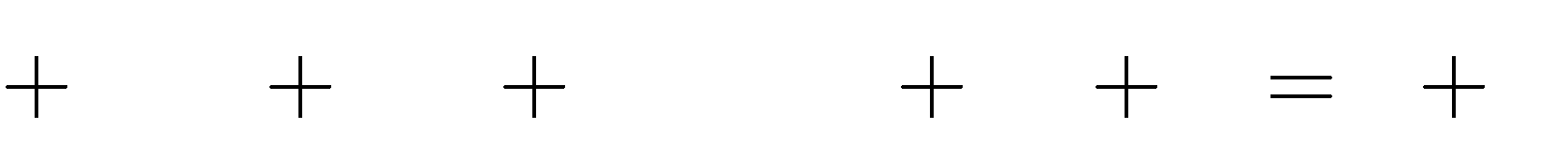
*x* cm . Tính chiều cao của hình hộp chữ nhật đó

Diện tích đáy của hình hộp chữ nhật là: 2*x* cm2



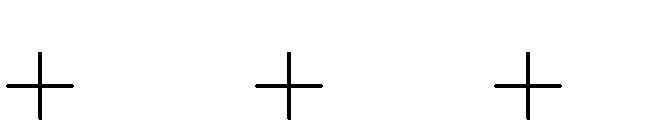
1 . *x* 3 2*x*2 7*x* 3

Chiều cao của hình hộp chữ nhật là: 2*x*3 cm



11*x*2 17*x* 6 : 2*x*2 7*x* 3 *x* 2

**Bài 15.** Một hình hộp chữ nhật có thể tích là *x*3



6*x*2 11*x* 6



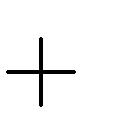
3

cm3

, chiều cao là

*x* cm ;

chiều dài là

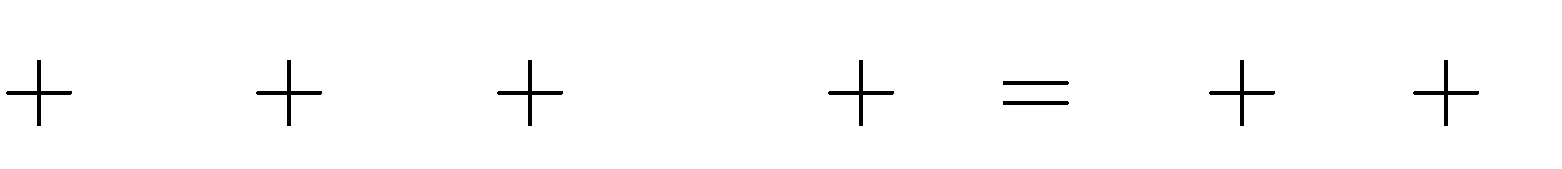


1

# Lời giải:

*x* cm . Tính chiều rộng của hình hộp chữ nhật.

Diện tích đáy của hình hộp chữ nhật là: *x*3 cm2

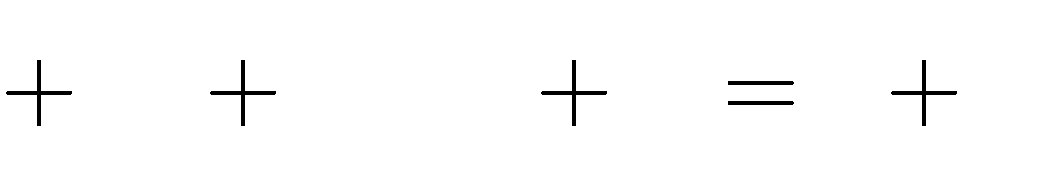


6*x*2 11*x* 6 : *x* 1

*x*2

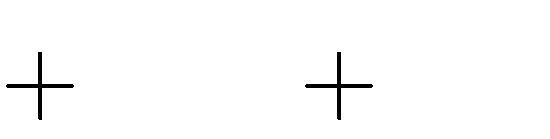
5*x* 6

Chiều rộng của hình hộp chữ nhật là: *x*2 cm



5*x* 6 : *x* 3 *x* 2

**Bài 16.** Một công ty sau khi tăng giá 20 nghìn đồng mỗi sản phẩm so với giá ban đầu là 3*x*



180*x* 800

(nghìn đồng) thì có doanh thu 9*x*2

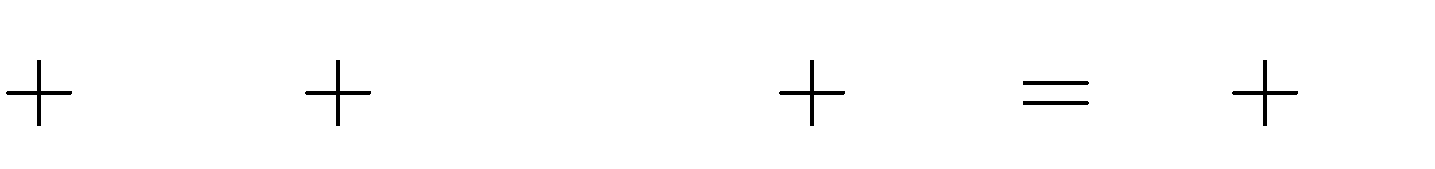
đã bán được theo *x*

# Lời giải:

(nghìn đồng). Tính số sản phẩm mà công ty đó

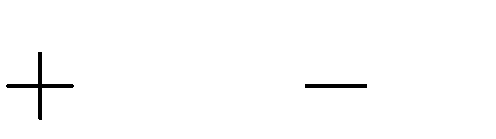
Số sản phẩm mà công ty đó đã bán được theo *x* là:

9*x*2 (sản phẩm)



180*x* 800 : 3*x* 20 3*x* 40

**Bài 17.** Một công ty sau khi giảm giá 3 nghìn đồng mỗi sản phẩm so với giá ban đầu là 4*x*



110*x* 96

(nghìn đồng) thì có doanh thu đã bán được theo *x* .

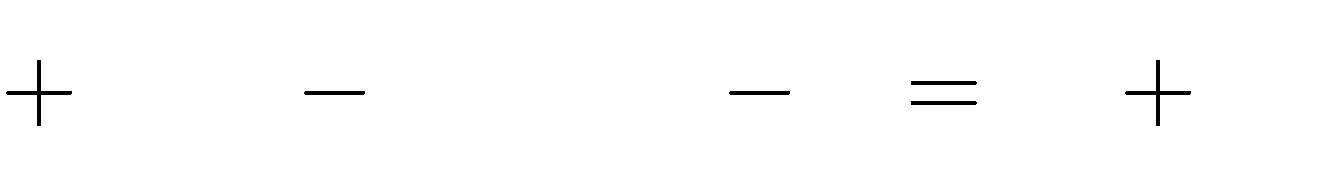
# Lời giải:

24*x*2

(nghìn đồng). Tính số sản phẩm mà công ty đó

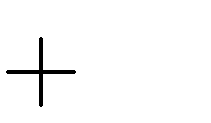
Số sản phẩm mà công ty đó đã bán được theo *x* là:

24*x*2 (sản phẩm)

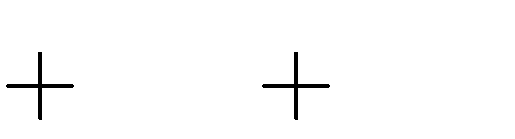


110*x* 96 : 4*x* 3 6*x* 32

**Bài 18.** Một cửa hàng bán được 3*x* (sản phẩm) thì có doanh thu là 6*x*2



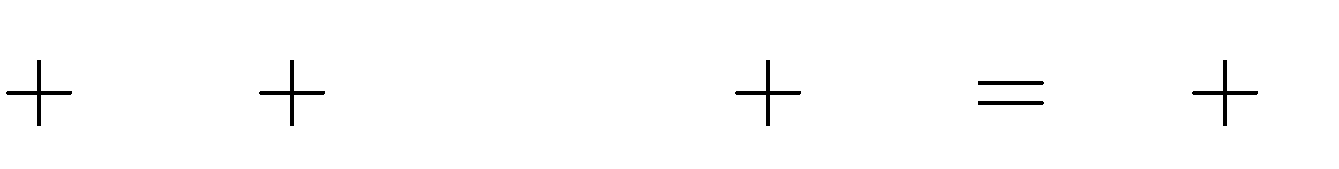
40



95*x* 200

đồng). Tính giá mỗi sản phẩm mà cửa hàng đã bán được theo *x* .

# Lời giải:



95*x* 200 : 3*x* 40 2*x* 5

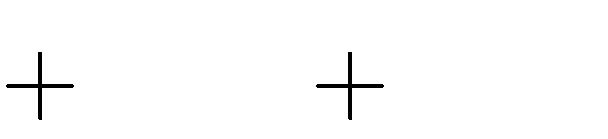
(nghìn

Giá mỗi sản phẩm mà cửa hàng đã bán là:

6*x*2

(nghìn đồng)

**Bài 19.** Một công ty sau khi tăng giá 40 nghìn đồng mỗi sản phẩm so với giá ban đầu là 3*x*



280*x* 1600

(nghìn đồng) thì có doanh thu 12*x*2

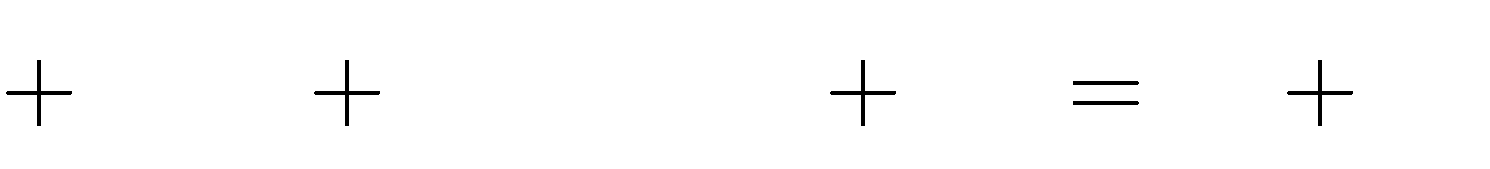
đó đã bán được theo *x*

# Lời giải:

(nghìn đồng). Tính số sản phẩm mà công ty

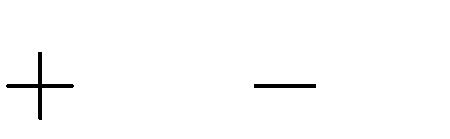
Số sản phẩm mà công ty đó đã bán được theo *x* là:

12*x*2 (sản phẩm)



280*x* 1600 : 3*x* 40 4*x* 40

**Bài 20.** Một cửa hàng sau khi giảm giá 3 nghìn đồng mỗi sản phẩm so với giá ban đầu là 5*x*



31*x* 24

(nghìn đồng) thì có doanh thu 15*x*2

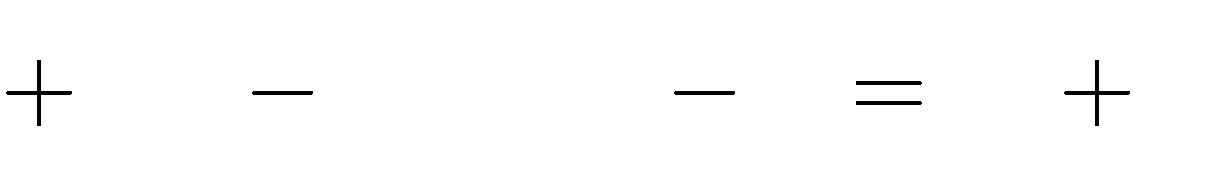
đã bán được theo *x*

# Lời giải:

(nghìn đồng). Tính số sản phẩm mà cửa hàng đó

Số sản phẩm mà công ty đó đã bán được theo *x* là:

15*x*2



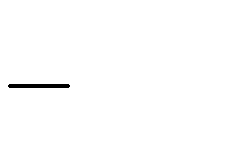
31*x* 24 : 5*x* 3 3*x* 8

# Phần III. BÀI TẬP TỰ LUYỆN

**Dạng 1. Thực hiện tính Bài 1.** Tính

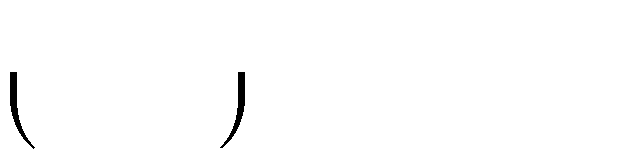
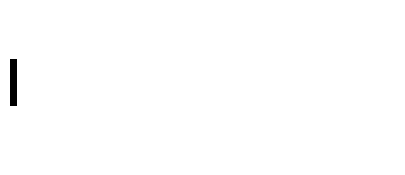
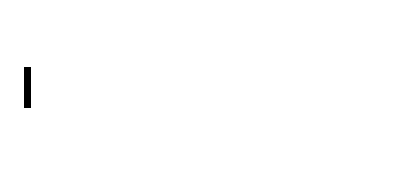
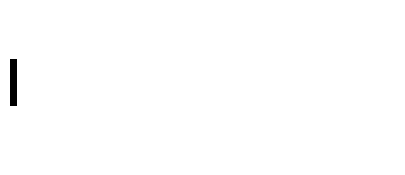
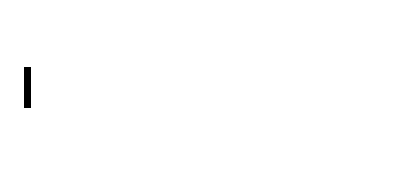
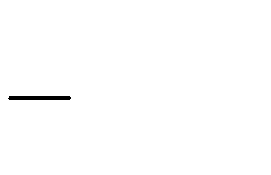
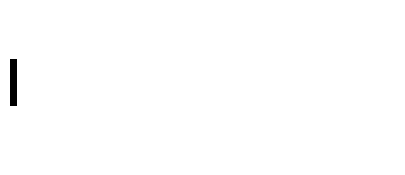
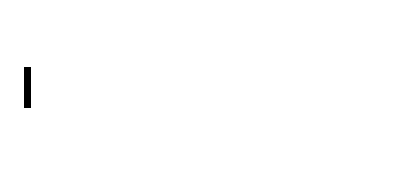
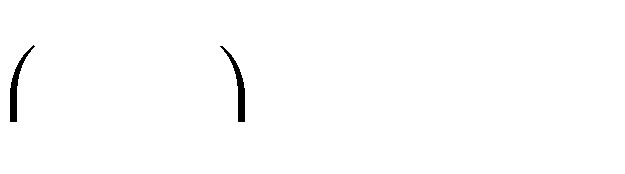
(sản phẩm)

a) 15 *y*2 :



3*y*

b)



1

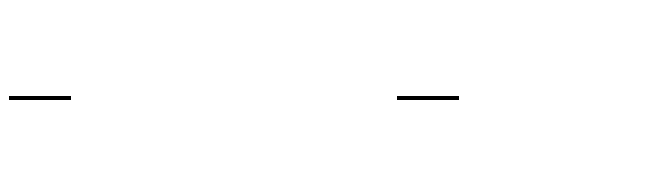
2

2

*x*5

: 4*x*4

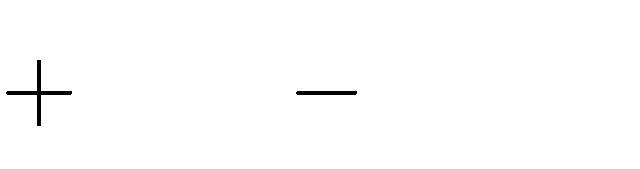
c)



15*z*4 : 3*z* 2

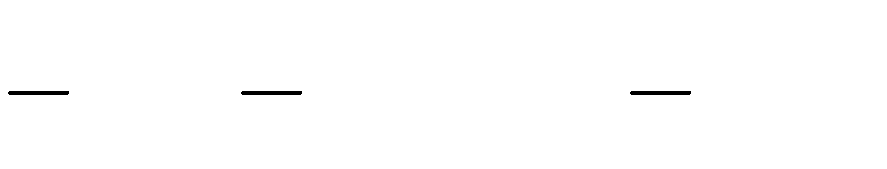
**Bài 2.** Làm các phép tính chia sau:

a) *x*4

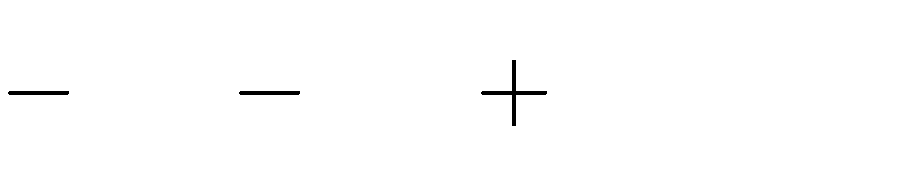


12*x*2 5*x* : *x*

b)

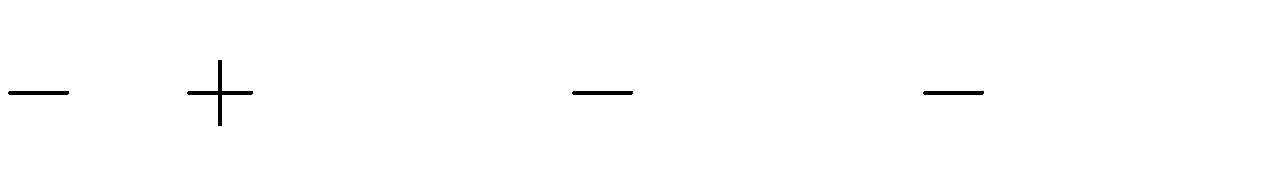


5*x*4 18*x*3 : 5*x*3



c) 2*x*5 4*x*3 3*x*2 : 2*x*2

d)



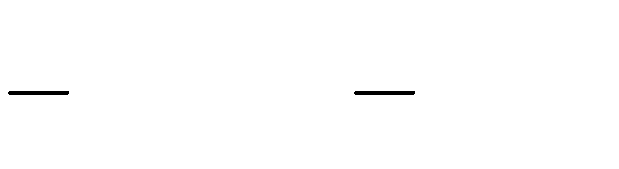
*x*6

0, 25*x*4

2*x*3 : 0, 5*x*2

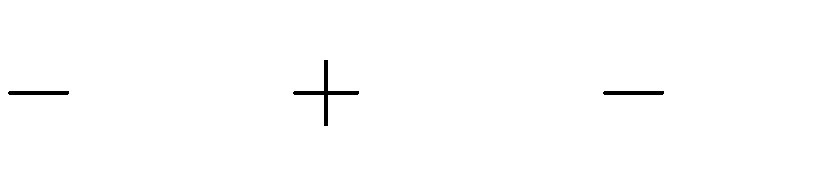
**Bài 3.** Thực hiện các phép chia:

1. 4*x*5



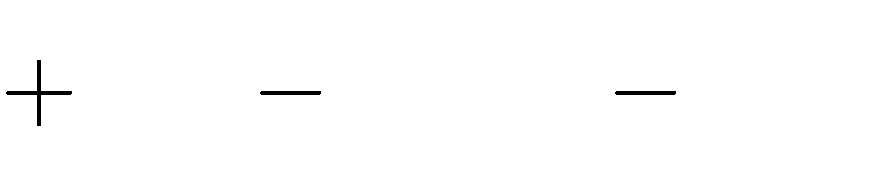
8*x*3 : 2*x*3

1. 9*x*3



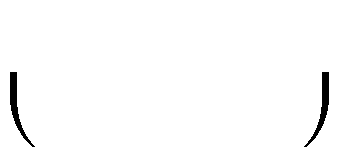
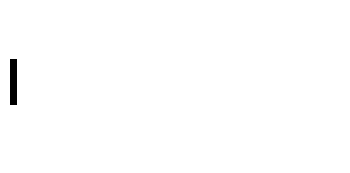
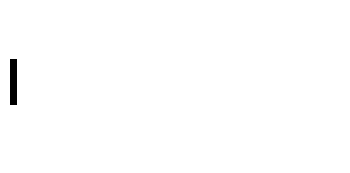
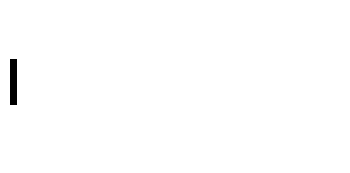
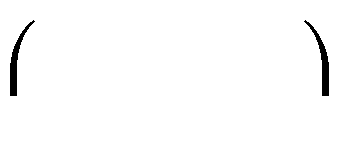
12*x*2 3*x* : 3*x*

1. *y*2



4 *y*3 3*y*4 : 2 *y*2

d)



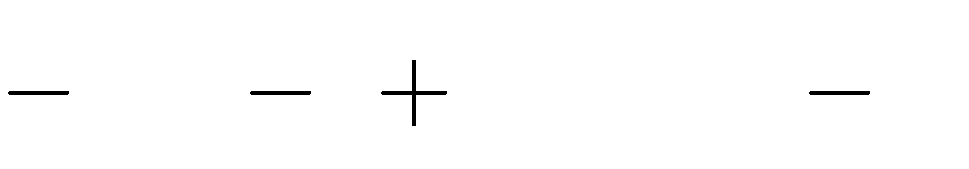
3*y*5 0, 25 *y*3 *y*2 :

1 *y*2

2

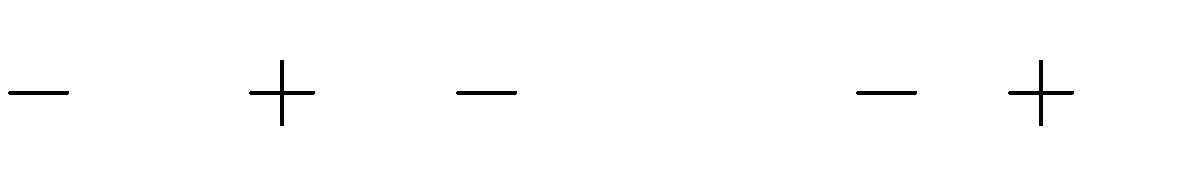
**Bài 4.** Thực hiện phép chia:

1. *x*4



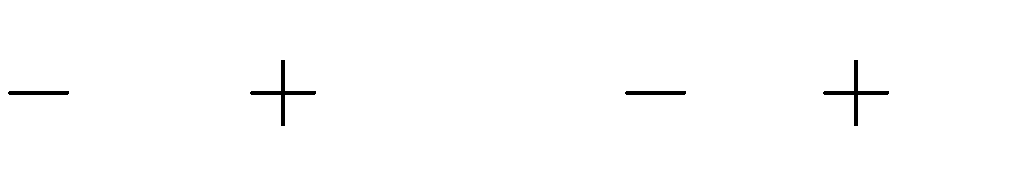
2*x*3 1 2*x* : *x*2 1

1. 6*x*3



5*x*2 4*x* 1 : 2*x*2 *x* 1

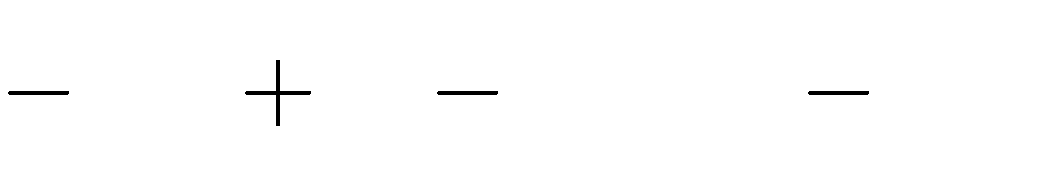
1. *x*4



5*x*2 4 : *x*2 3*x* 2

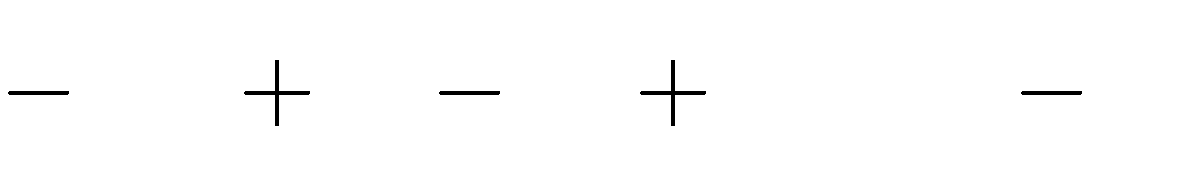
**Bài 5.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

a) 5*x*2



3*x*3 15 9*x* : 5 3*x*

b)

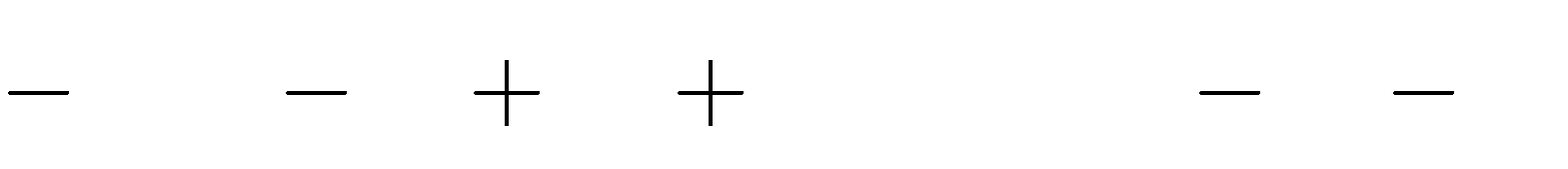


4*x*2

*x*3

20 5*x* : *x* 4

c) 2*x*4

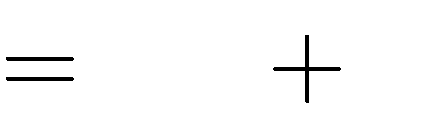


13*x*3 15 5*x* 21*x*2 : 4*x*

*x*2

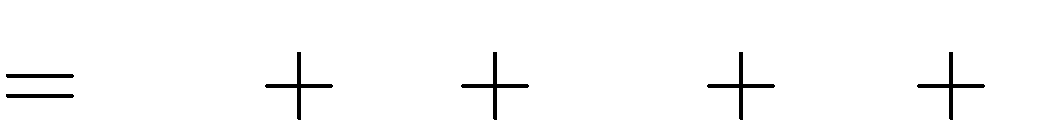
3

**Bài 6.** Tìm thương *Q* và dư *R* sao cho *A* biết



*B*.*Q R*

1. *A*

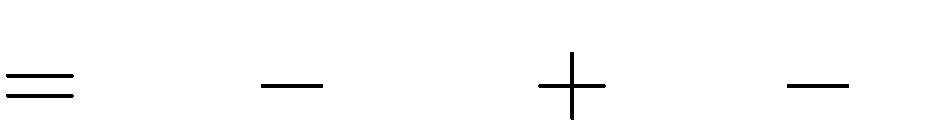


2*x*4

*x*3

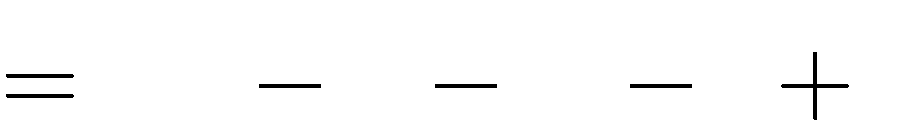
3*x*2 4*x* 9

1. *A*



2*x*3 11*x*2 19*x* 6

1. *A*



2*x* 4

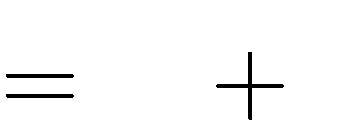
*x*3

*x*2

*x* 1

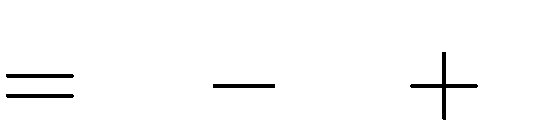
và *B*

và *B*



*x*2

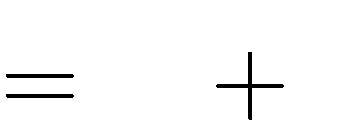
1



*x*2

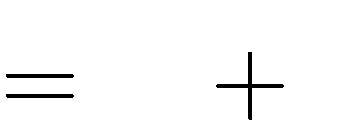
3*x* 1

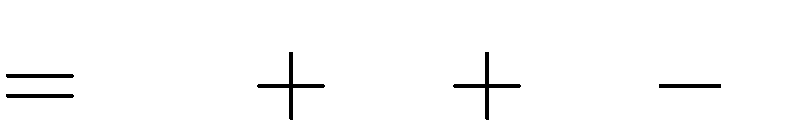
và *B*



*x*2

1

**Bài 7.** Cho hai đa thức *A* và *B x*2 1. Tìm dư *R* trong phép chia *A* cho *B*

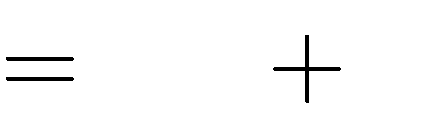


3*x*4

*x*3

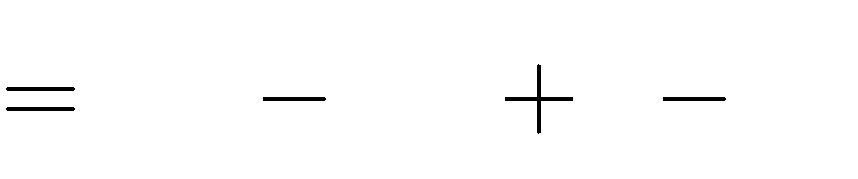
6*x* 5

rồi viết *A* dưới dạng *A*



*B*.*Q R*

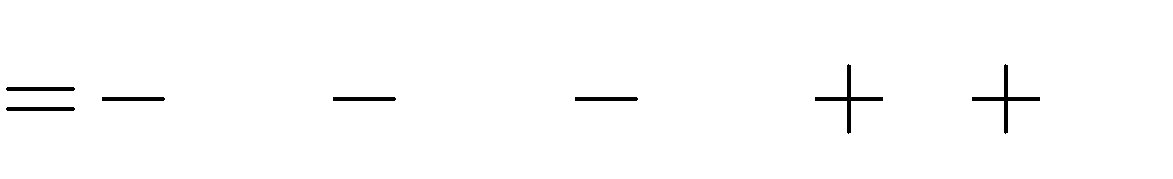
**Bài 8.** Cho các đa thức sau *A x B x*



6*x*4 4*x*3 *x*

1 ;

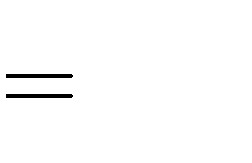
3

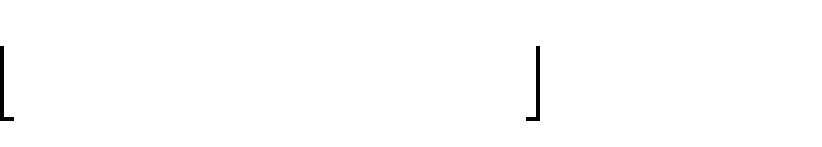
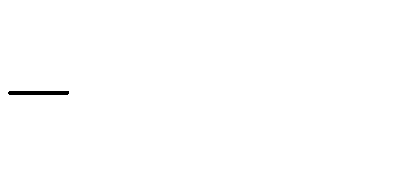
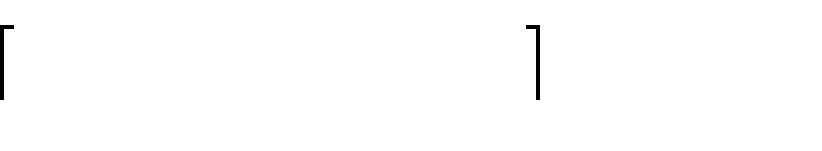


3*x*4 2*x*3 5*x*2 *x*

2 ;

3

*C x* 2*x*3 . Tìm dư *R* trong phép chia .

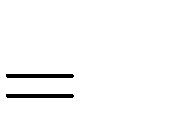


*A x B x* : *C x*

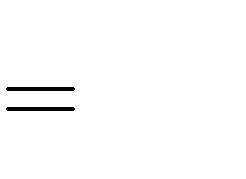
# Dạng 2. Tìm điều kiện của *n* để phép tính chia cho trước là phép chia hết

**Bài 1.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

1. *A* và *B*

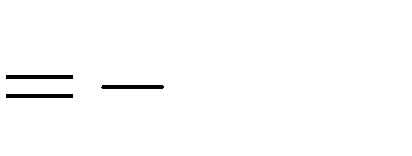


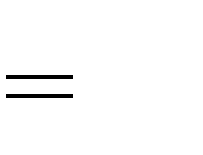
*x*3



1 *x*

2

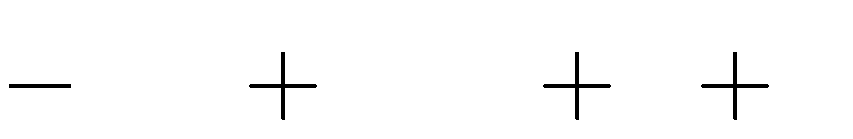
1. *A* 0, 5*y*3 và *B*



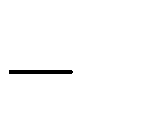
*y*6

**Bài 2.** Tìm *a* để

1. *x*4 chia hết cho *x*

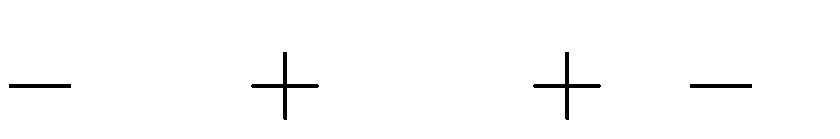


9*x*3 21*x*2 *x a*

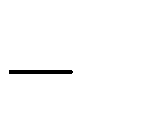


2

1. 3*x*4 chia hết cho *x*

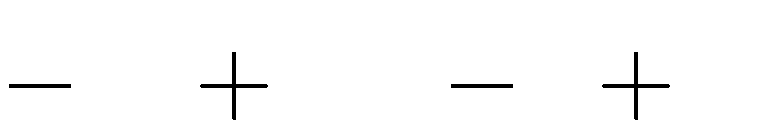


7*x*3 11*x*2 *x a*



4

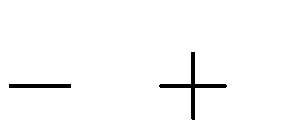
1. *x*4 chia hết cho *x*2



*x*3

6*x*2

*x a*



*x* 5

**Bài 3.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

1. *A*

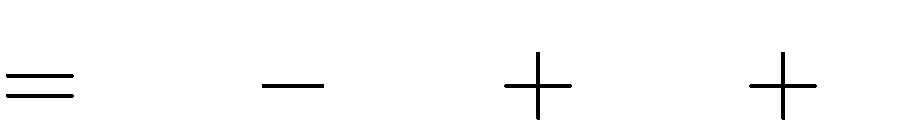


*x*4

3*x*3

3*x*2 *ax b*

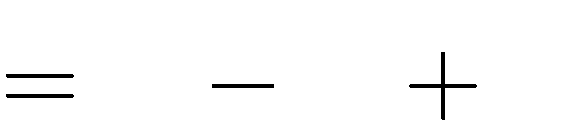
1. *A*



6*x*4 7*x*3 *ax*2 *b*

và *B*

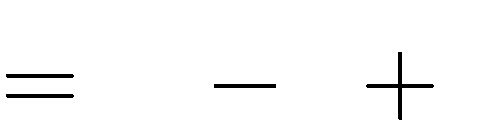
và *B*



*x*2

3*x*

4



*x*2

*x* 1

**Bài 4.** Tìm số tự nhiên *n* để

1. 15*xn* chia hết cho 3*x*3



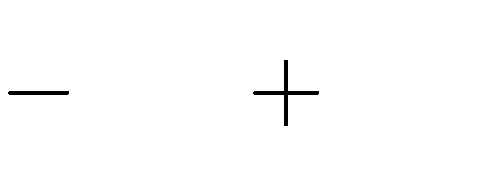
2

1. 2 *y*3 chia hết cho 5 *yn*



1

1. *x*3

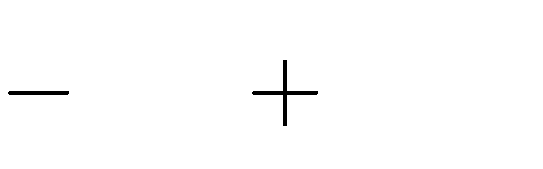


5*x*2 3*x*

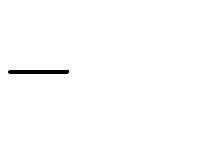
1. 2 *y*4

chia hết cho 4*xn*

chia hết cho 1 *y*



5 *y*3 6 *yn*



5

**Bài 4.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

1. *A*

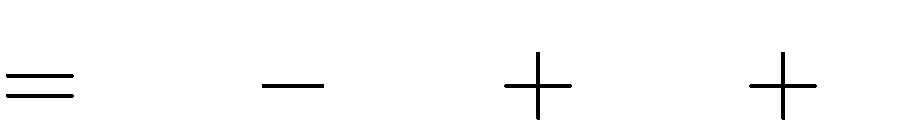


*x*4

3*x*3

3*x*2 *ax b*

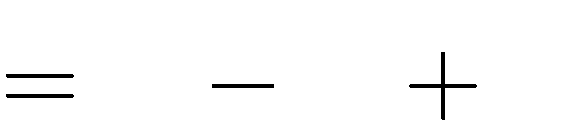
1. *A*



6*x*4 7*x*3 *ax*2 *b*

và *B*

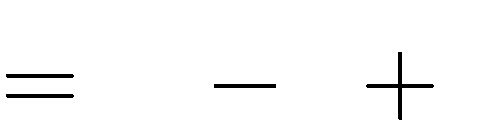
và *B*



*x*2

3*x*

4

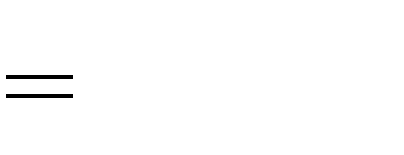
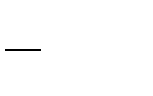


*x*2

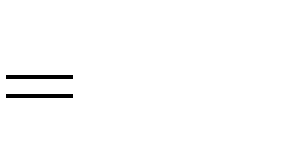
*x* 1

**Bài 5.** Tìm các giá trị nguyên của *n* để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho

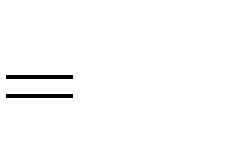
biểu thức *C* biết: *A B C*



18*y*12 3*n* ;



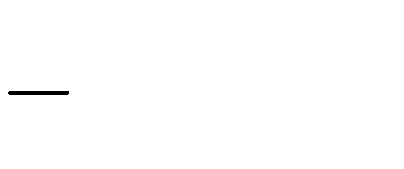
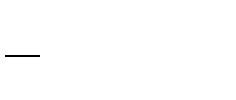
3*yn* ;



3*y*3

**Bài 6.** Tìm số tự nhiên *n* để mỗi phép chia sau là phép chia hết

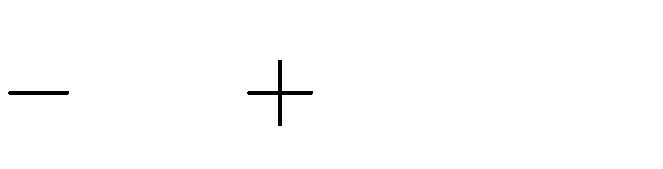
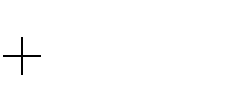
1. 4*xn* 2

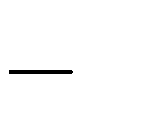


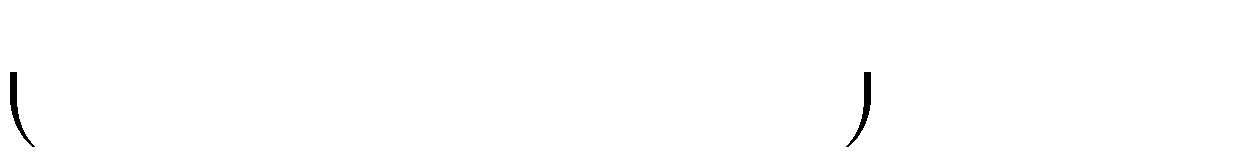
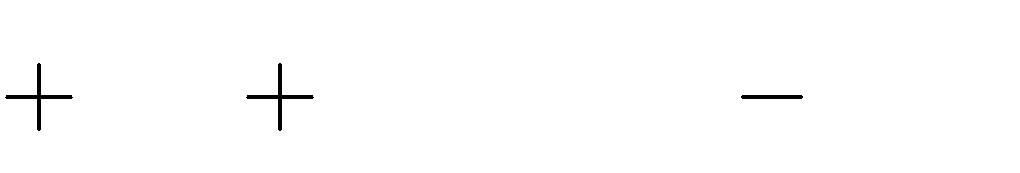
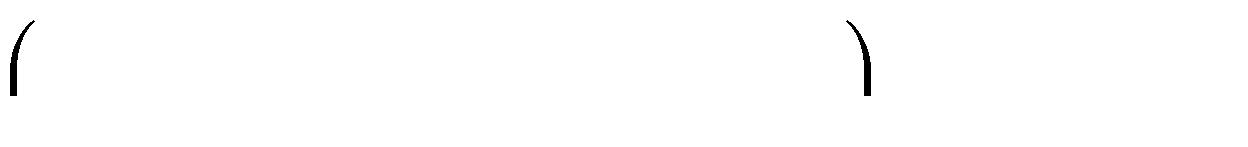
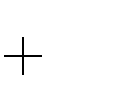
5*x*3

: 2*x*

1. 2*x*4



c)



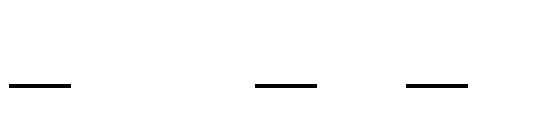
1 *x*4

2

3*x*3

0, 25*x*2 :

*xn* 1



4*n*2 *n* 1

5*x*3

*xn* 2

: 3*x*2

**Bài 7.** Tìm giá trị nguyên của *n* để biểu thức

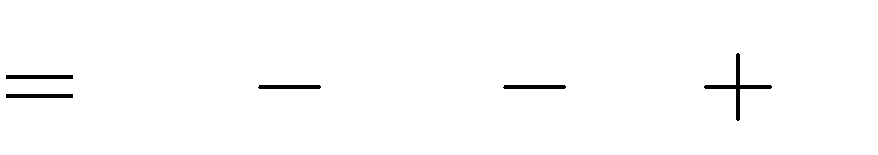
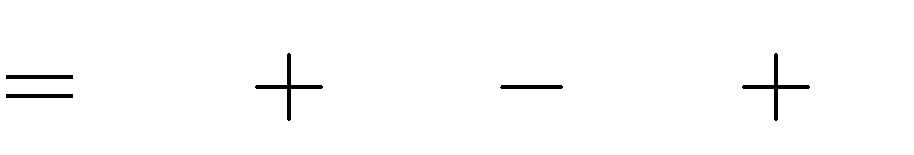
4*n*3

chia hết cho biểu thức 2*n* 3 .

**Bài 8.** Tìm giá trị nguyên của *n* để giá trị của biểu thức *A* chia hết cho giá trị của biểu thức *B*

biết:

1. *A*



1. *A*

3*n*3

4*n*3

8*n*2

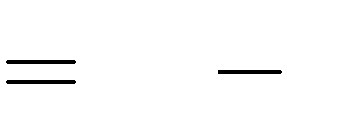
2*n*2

15*n*

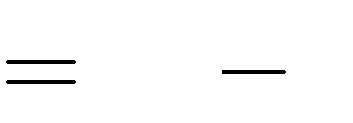
6*n*

6; *B*

5; *B*

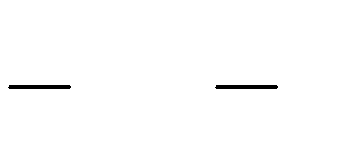


3*n* 1

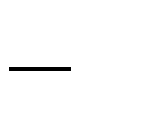


2*n* 1

**Dạng 3. Vận dụng phép chia đa thức một biến vào bài toán ứng dụng Bài 1.** Tính chiều dài của một hình chữ nhật có diện tích bằng 12 *y*2



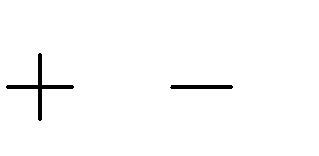
5 *y* 2



2

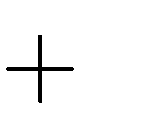
rộng 3*y* cm

**Bài 2.** Tính chiều rộng của một hình chữ nhật có diện tích bằng 15 *y*2



*y* 6

dài 3*y* cm



2

cm2

cm2

và chiều

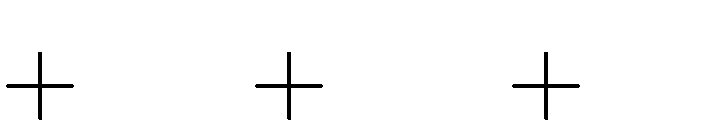
và chiều

**Bài 3.** Tính diện tích đáy của một hình hộp chữ nhật có chiều cao bằng *x* cm và có thể



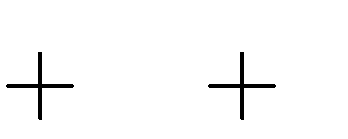
5

tích bằng *x*3 cm3 .

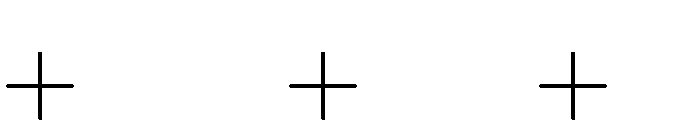


9*x*2 23*x* 15

**Bài 4.** Tính chiều cao của một hình hộp chữ nhật có diện tích đáy bằng *x*2



3*x* 1



11*x*2 17*x* 5

cm2

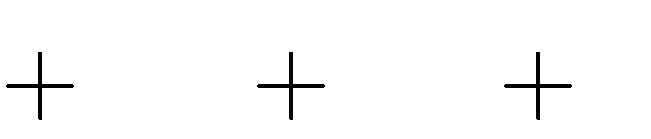
và có

thể tích bằng

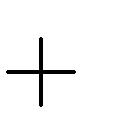
2*x*3

cm3

**Bài 5.** Một hình hộp chữ nhật có thể tích là *x*3



7*x*2 14*x* 8



1



2

cm3

. Biết đáy là hình chữ nhật

có các kích thước

*x* cm và

*x* cm . Tính chiều cao của hình hộp chữ nhật đó theo *x*

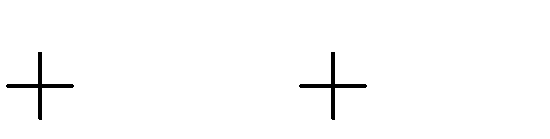
**Bài 6.** Một hình hộp chữ nhật có thể tích là

2*x*3

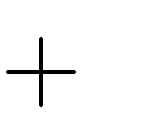
cm3

, chiều cao là 2*x* cm ;

chiều dài là *x* cm . Tính chiều rộng của hình hộp chữ nhật.



17*x*2 30*x*

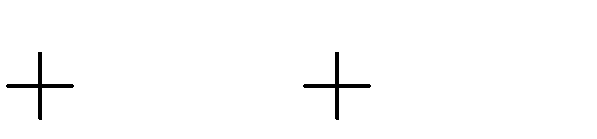


5



6

**Bài 7.** Một công ty sau khi tăng giá 20 nghìn đồng mỗi sản phẩm so với giá ban đầu là 2*x*



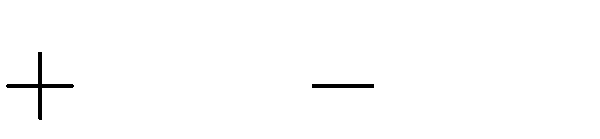
170*x* 1100

(nghìn đồng) thì có doanh thu đó đã bán được theo *x*

6*x*2

(nghìn đồng). Tính số sản phẩm mà công ty

**Bài 8.** Một công ty sau khi giảm giá 6 nghìn đồng mỗi sản phẩm so với giá ban đầu là 2*x*



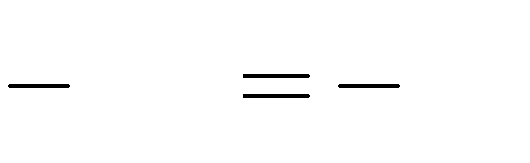
510*x* 1692

(nghìn đồng) thì có doanh thu 18*x*2

đó đã bán được theo *x*

(nghìn đồng). Tính số sản phẩm mà công ty

# Dạng 1. Thực hiện tính Bài 1.



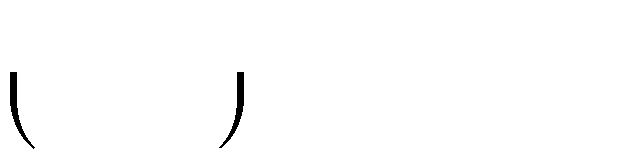
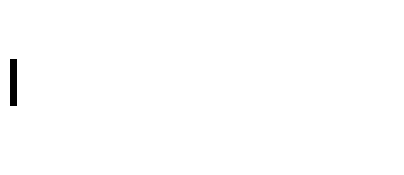
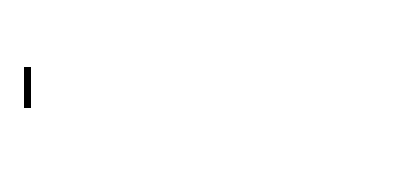
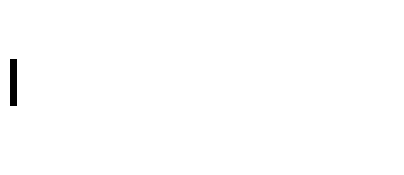
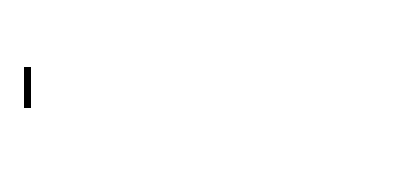
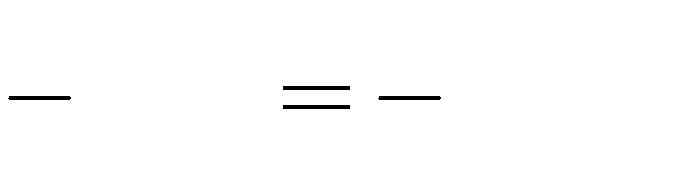
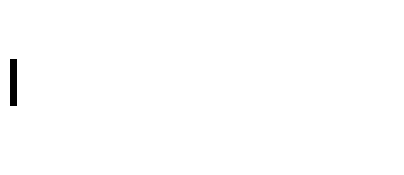
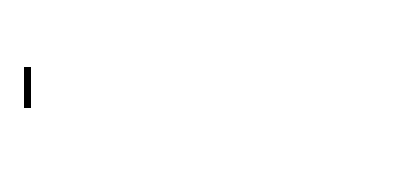
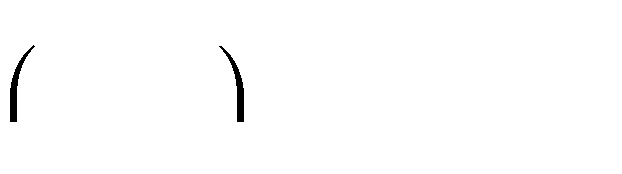
3*y*

5 *y*

a) 15 *y*2 :

# ĐÁP SỐ BÀI TẬP TỰ LUYỆN

b)



1

2

2

*x*5

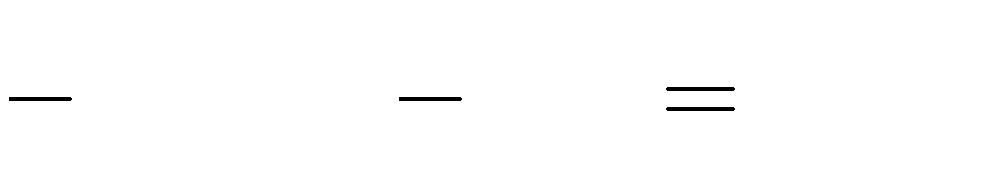
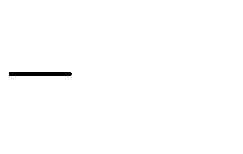
: 4*x*4

*x*6

16

1

c)



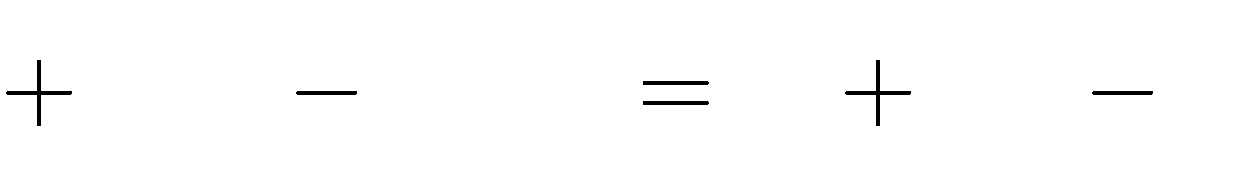
15*z*4 : 3*z* 2

5 *z*2

3

# Bài 2.

a) *x*4

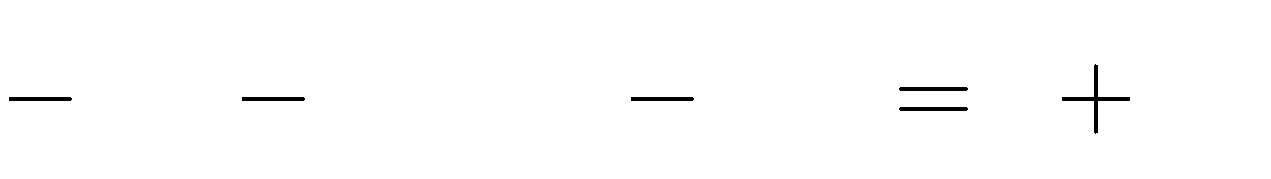


12*x*2 5*x* : *x*

*x*3

12*x* 5

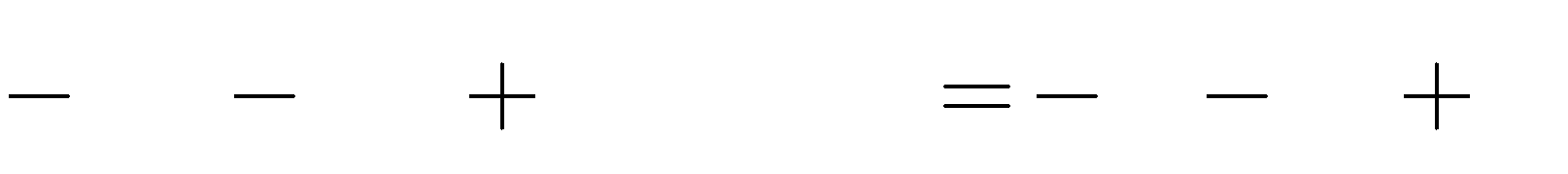
b)



5*x*4 18*x*3 : 5*x*3 *x* 18

5

c)



2*x*5 4*x*3 3*x*2 : 2*x*2

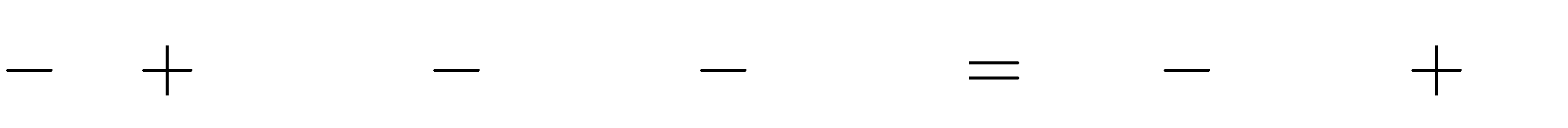
*x*3

2*x*

3

2

d)



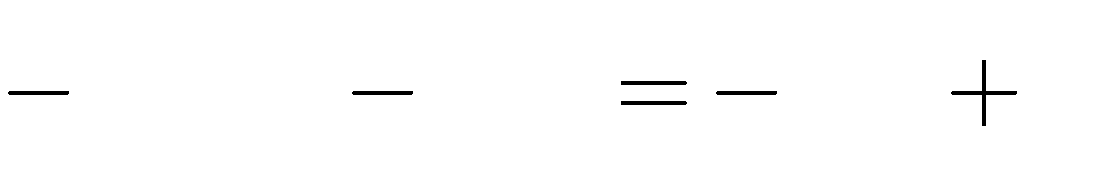
*x*6

0, 25*x*4

2*x*3 : 0, 5*x*2 2*x*4 0, 5*x*2 4*x*

# Bài 3.

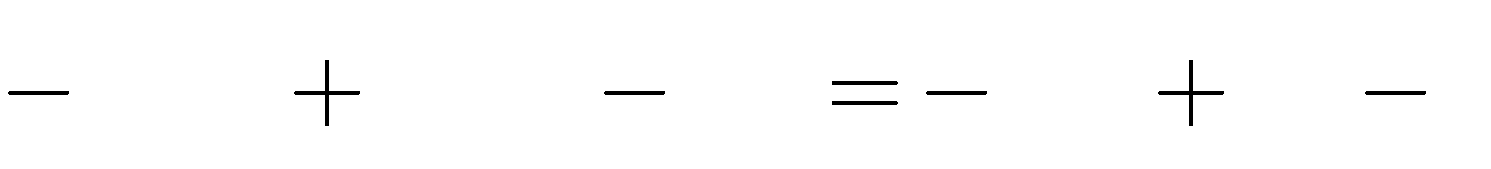
1. 4*x*5



8*x*3 : 2*x*3

2*x*2 4

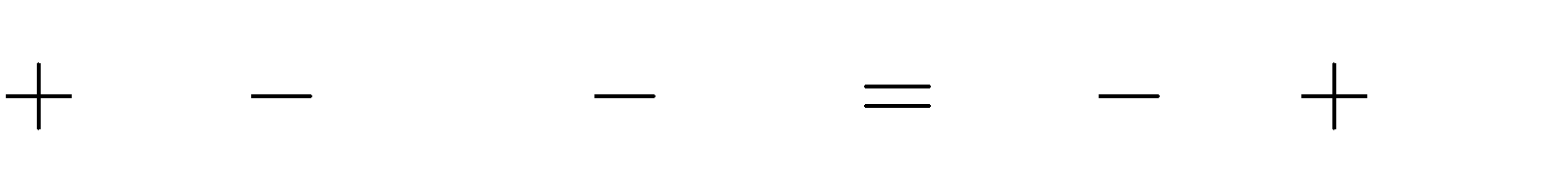
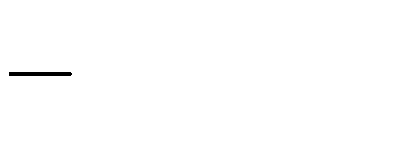
1. 9*x*3



12*x*2 3*x* : 3*x*

3*x*2 4*x* 1

1. *y*2



4*y*3 3*y*4 : 2 *y*2

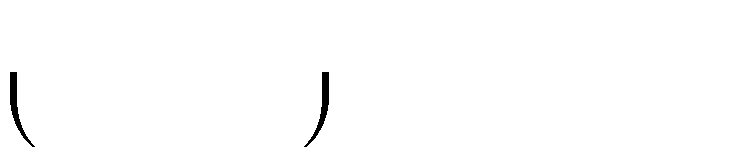
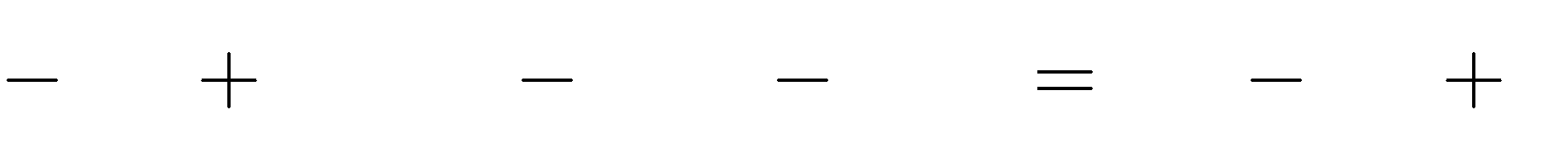
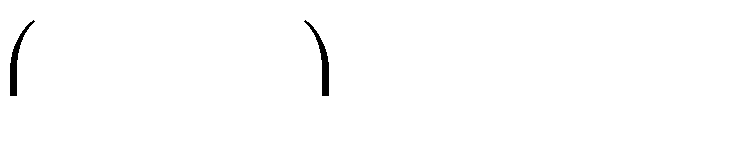
1 2 *y*

2

3 *y*2

2

d)



3*y*5 0, 25 *y*3

*y*2

:

1 *y*2

2

6 *y*3

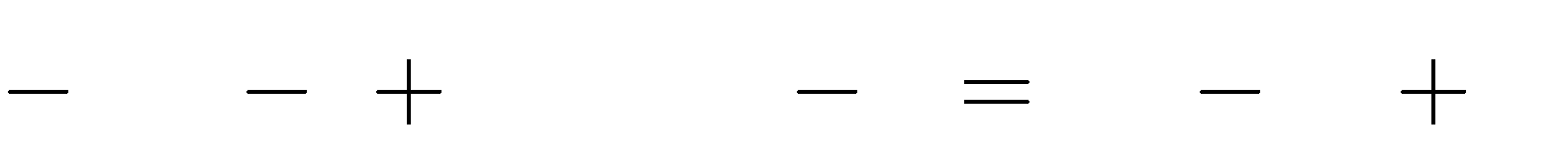
1 *y*

2

2

# Bài 4.

1. *x*4

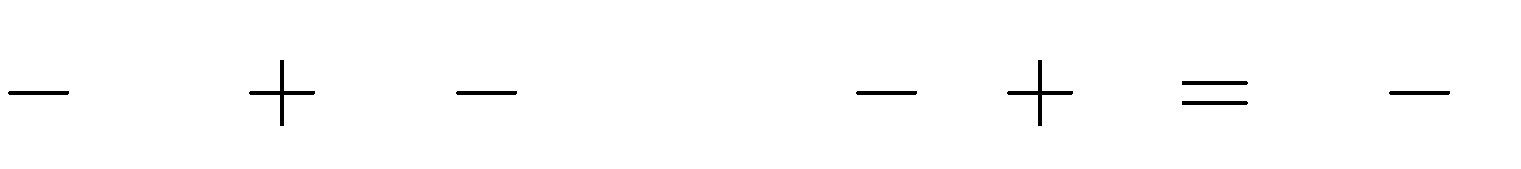


2*x*3 1 2*x* : *x*2 1

*x*2

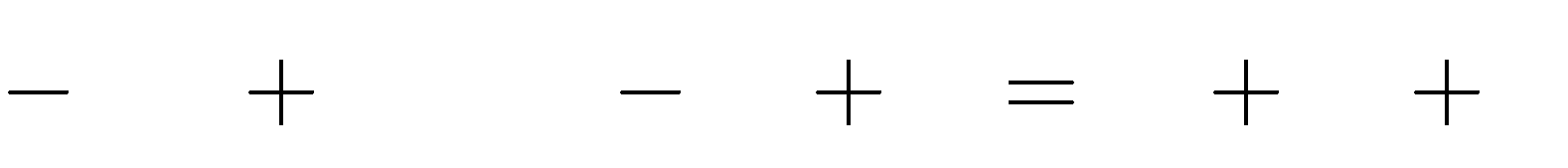
2*x* 1

1. 6*x*3



5*x*2 4*x* 1 : 2*x*2 *x* 1 3*x* 1

1. *x*4



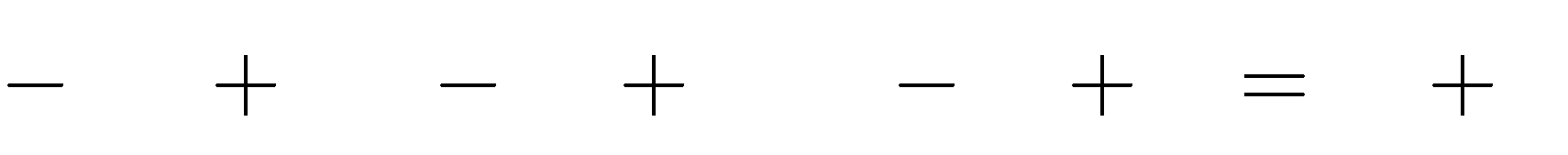
5*x*2 4 : *x*2 3*x* 2

*x*2

3*x* 2

# Bài 5.

a)

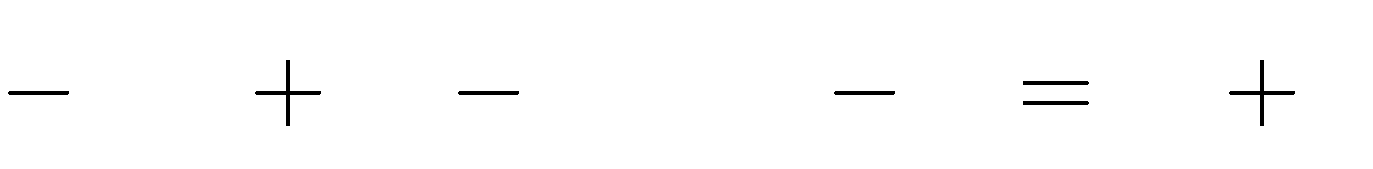


3*x*3 5*x*2 9*x* 15 : 3*x* 5

*x*2

3

1. *x*3

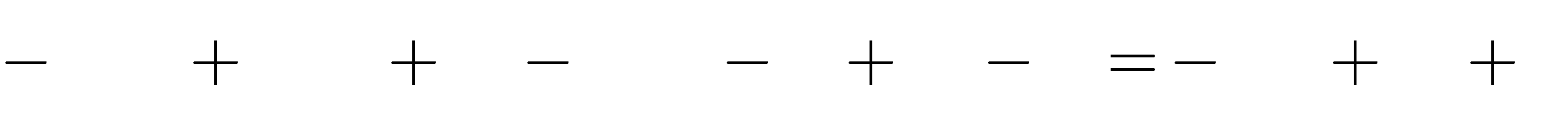


4*x*2 5*x* 20 : *x* 4

*x*2

5

1. 2*x*4



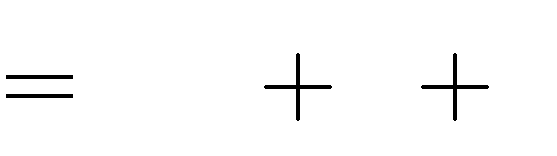
13*x*3 21*x*2 5*x* 15 :

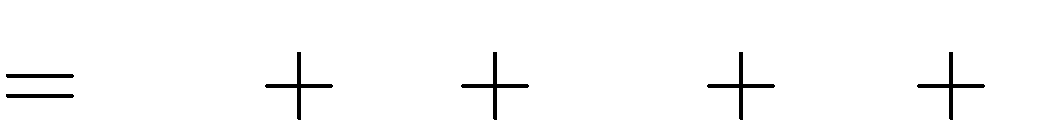
*x*2

4*x* 3

2*x*2 5*x* 5

# Bài 6.

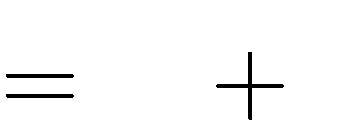
1. *A* và *B*



2*x*4

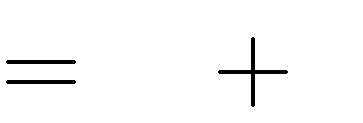
*x*3

3*x*2 4*x* 9



*x*2

1



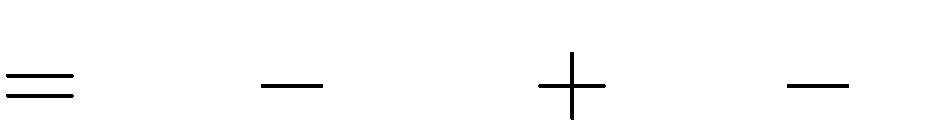
3*x* 8

Thương *Q*

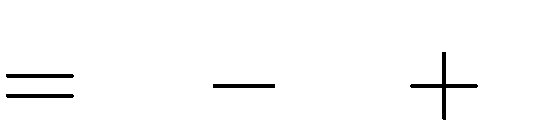
2*x*2

*x* 1 ; dư *R*

1. *A* và *B*

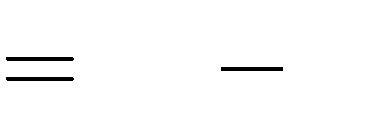


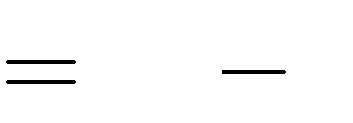
2*x*3 11*x*2 19*x* 6



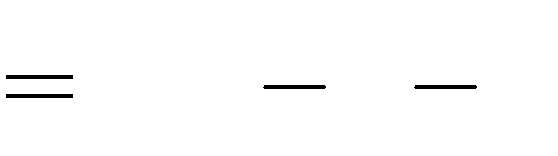
*x*2

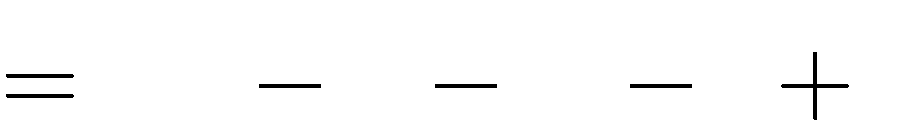
3*x* 1

Thương *Q* 2*x* 5 ; dư *R*



2*x* 1

1. *A* và *B*

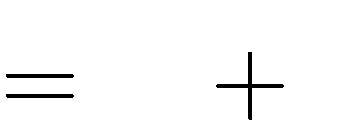


2*x* 4

*x*3

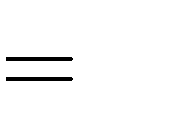
*x*2

*x* 1



*x*2

1



4

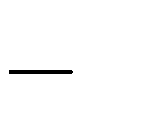
Thương *Q*

# Bài 7.

2*x*2

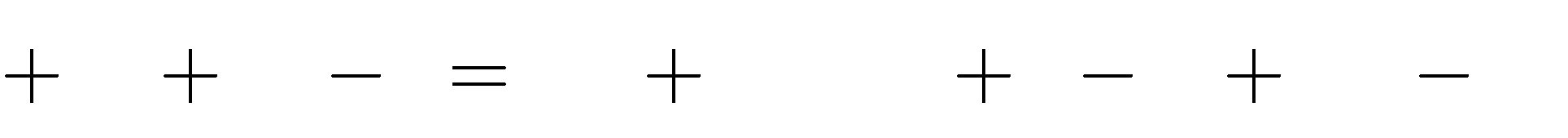
*x* 3 ; dư *R*

Dư *R* trong phép chia *A* cho *B* là 5*x*



2

3*x*4



*x*3

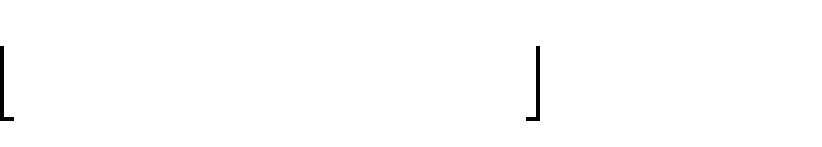
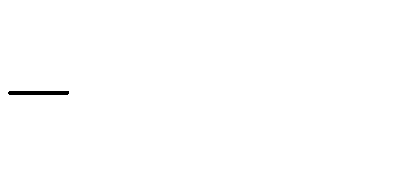
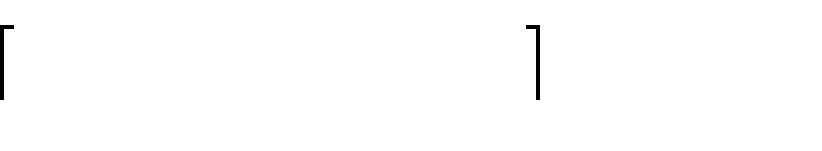
6*x* 5

*x*2

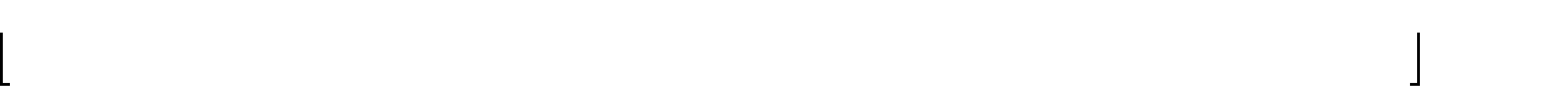
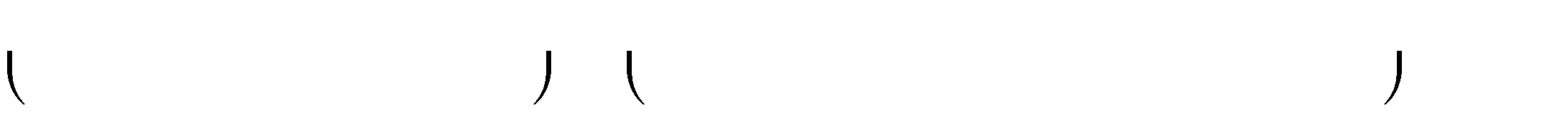
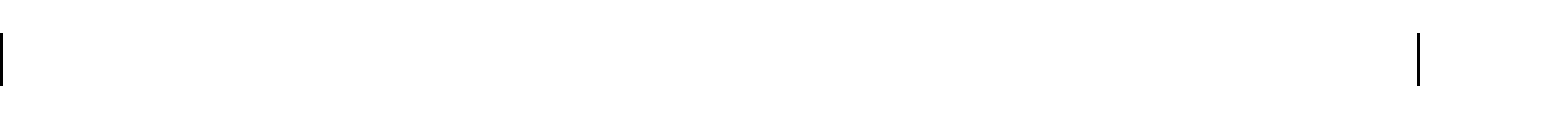
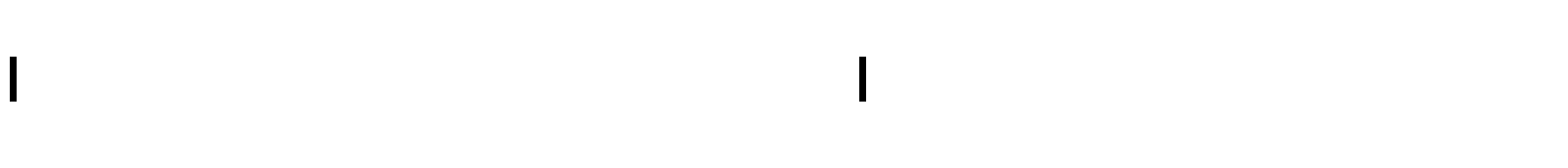
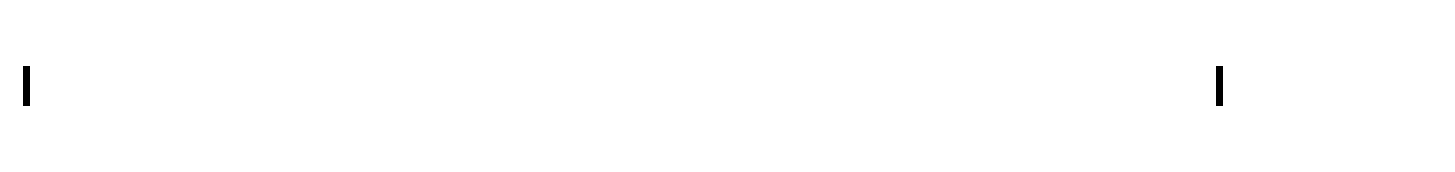
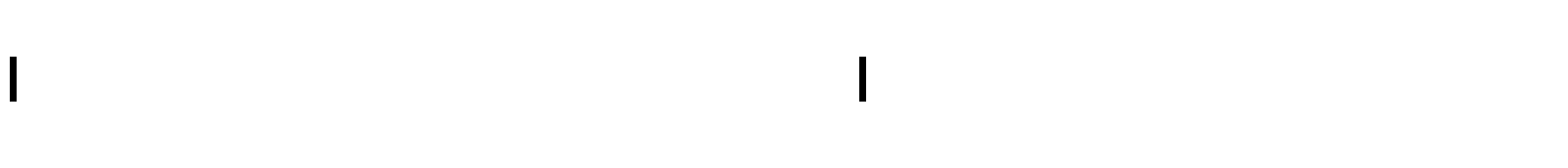
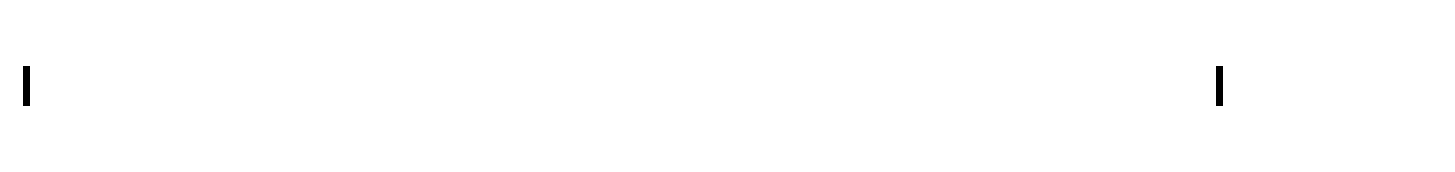
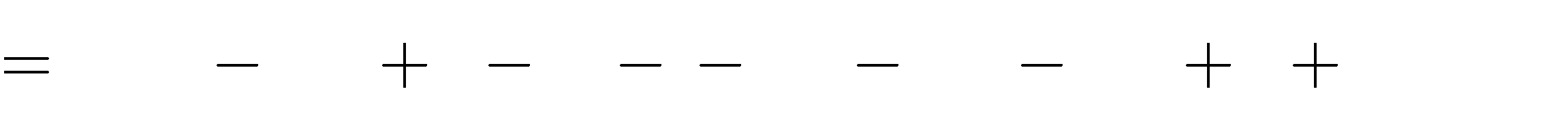
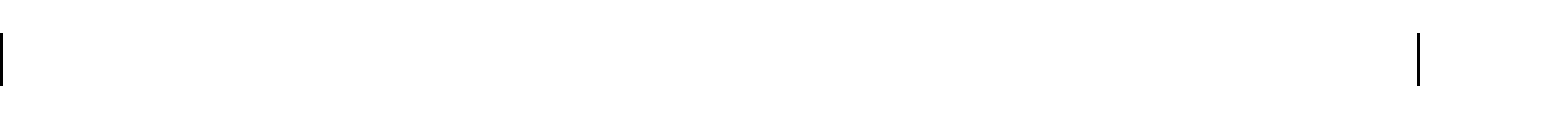
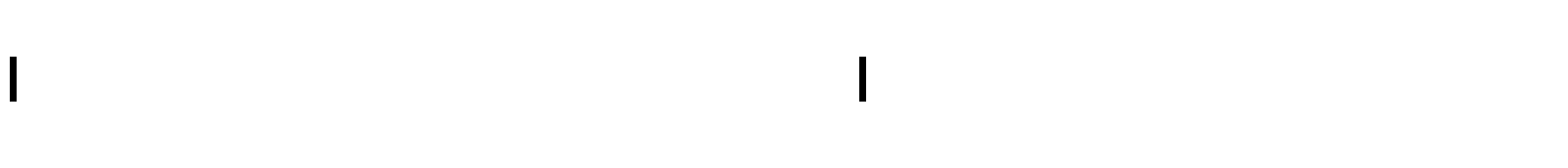
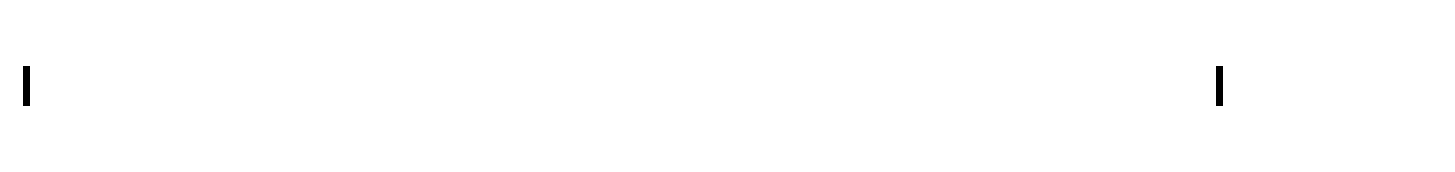
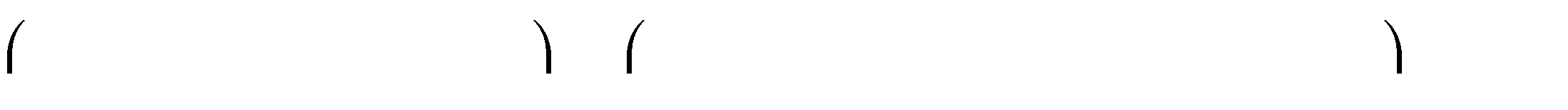
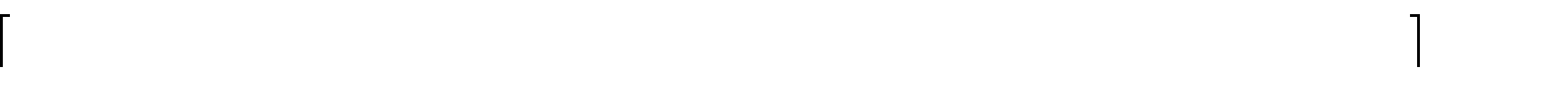
1 . 3*x*2

*x* 3 5*x* 2

# Bài 8.



*A x B x* : *C x*



6*x*4 4*x*3 *x*

1

3

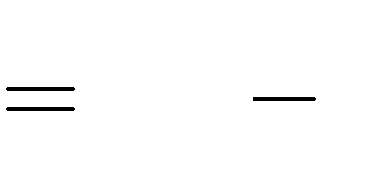
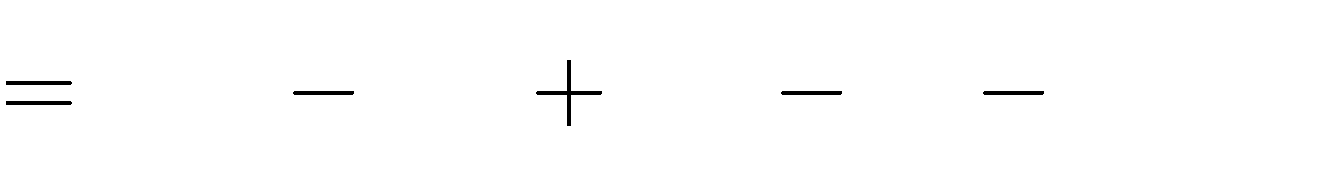
3*x*4 2*x*3 5*x*2 *x*

2

3

: 2*x*3

dư 5*x*2  2*x* 1



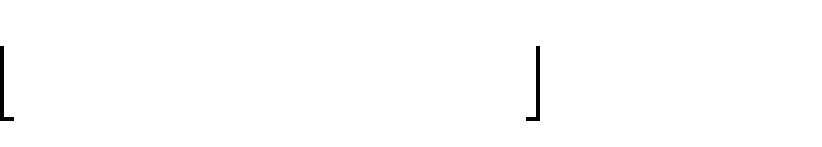
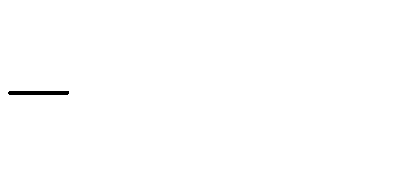
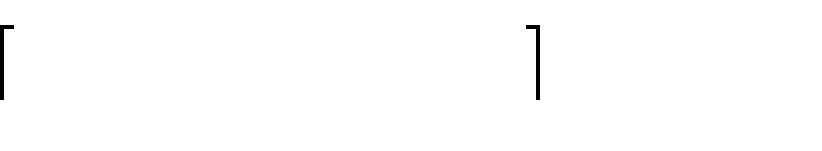
9*x*4 2*x*3 5*x*2 2*x* 1 : 2*x*3

9 *x*

2

1

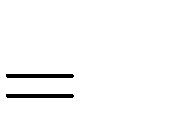
Vậy dư trong phép chia là *R*  5*x*2  2*x* 1



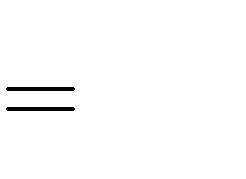
*A x B x* : *C x*

# Dạng 2. Tìm điều kiện của *n* để phép tính chia cho trước là phép chia hết Bài 1.

1. *A* và *B*



*x*3

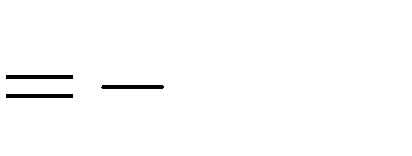


1 *x*

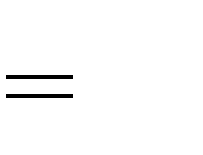
2

Đơn thức *A* có chia hết cho đơn thức *B* vì mỗi biến của *B* đều là biến của *A* với số mũ nhỏ hơn số mũ của nó trong *A*

1. *A* và *B*



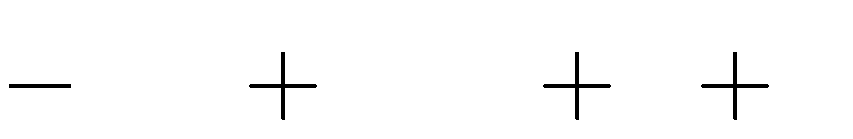
0, 5*y*3



*y*6

Đơn thức *A* không chia hết cho đơn thức *B* vì mỗi biến của *B* đều là biến của *A* nhưng với số mũ lớn hơn số mũ của nó trong *A*

# Bài 2.



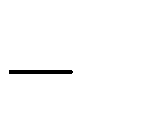
9*x*3 21*x*2 *x a*

1. *x*4

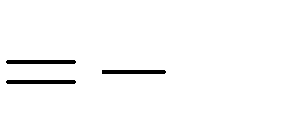
chia hết cho

*x* khi *a*

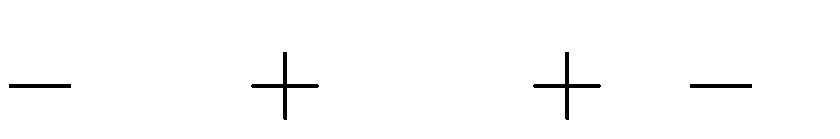
1. 3*x*4



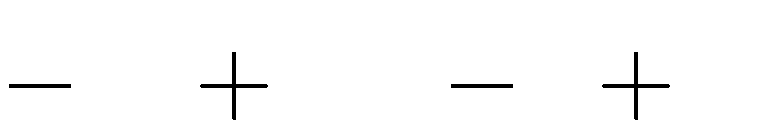
2



30



7*x*3 11*x*2 *x a*



*x*3

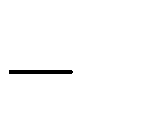
6*x*2

*x a*

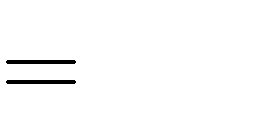
chia hết cho

*x* khi *a*

1. *x*4



4

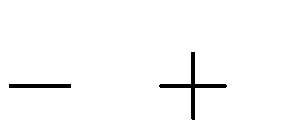


500

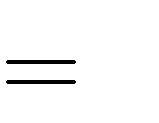
chia hết cho *x*2

khi *a*

# Bài 3.



*x* 5



5

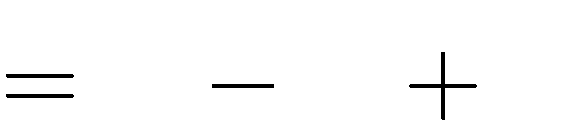
1. *A* và *B*



*x*4

3*x*3

3*x*2 *ax b*

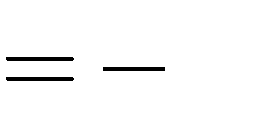


*x*2

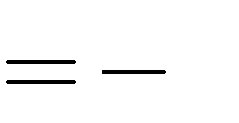
3*x*

4

Để đa thức *A* chia hết cho đa thức *B* thì *a b*

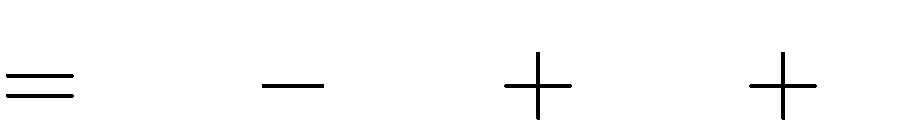


3;

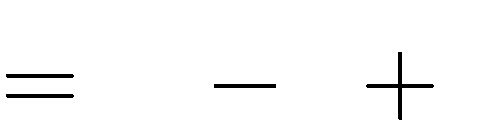


4

1. *A* và *B*



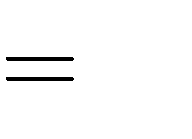
6*x*4 7*x*3 *ax*2 *b*



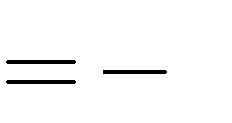
*x*2

*x* 1

Để đa thức *A* chia hết cho đa thức *B* thì *a b*



6;



1

# Bài 4.

1. 15*xn* chia hết cho 3*x*3 khi *n*



2

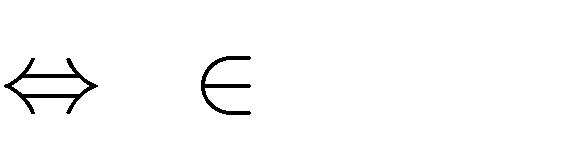
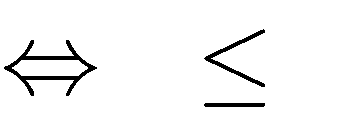
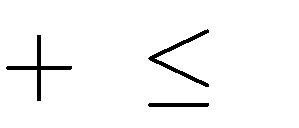


2 3 *n* 1

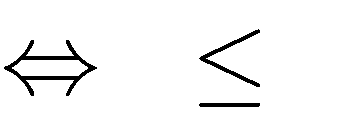
1. 2 *y*3 chia hết cho 5 *yn* khi *n*



1

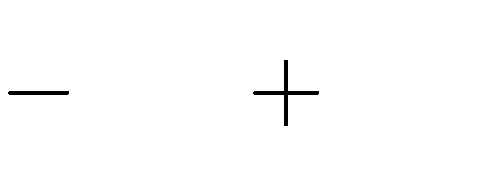


1 3 *n* 2 *n* 0;1; 2



*n* 1 *n* 0;1

1. *x*3



5*x*2 3*x*

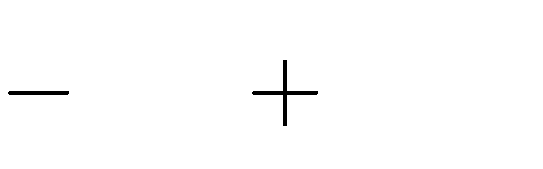
chia hết cho 4*xn*

khi hạng tử 3*x* chia hết cho 4*xn*

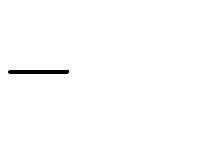
1. 2 *y*4

chia hết cho 1 *y* khi hạng tử 6 *yn*

5

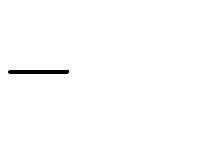


5 *y*3 6 *yn*



chia hết cho

# Bài 5.



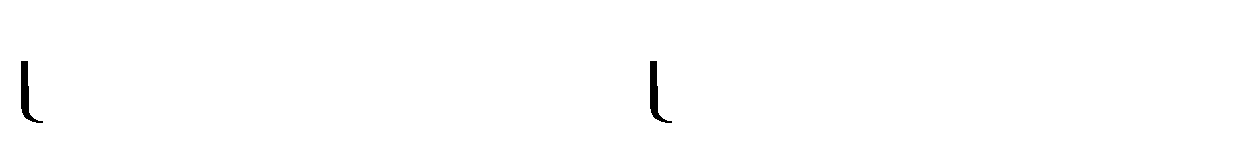
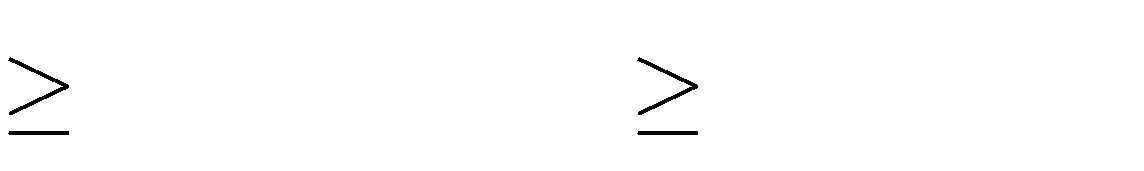
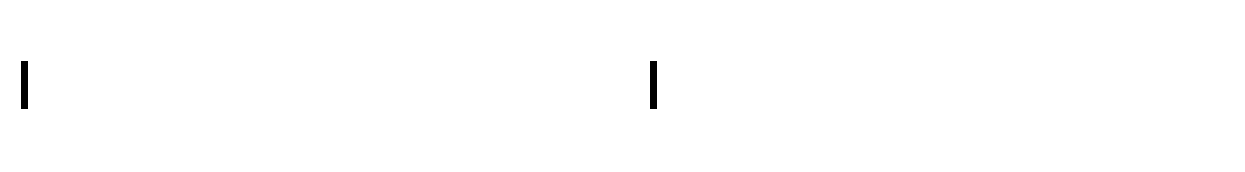
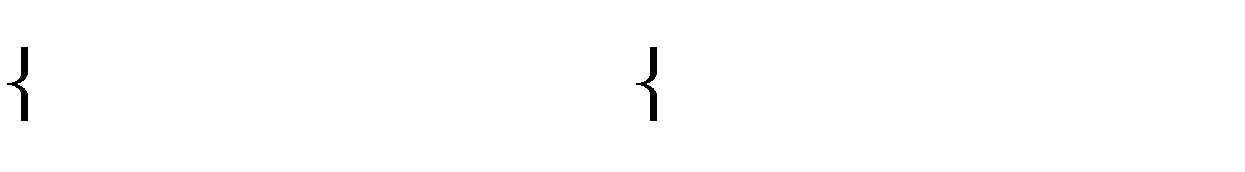
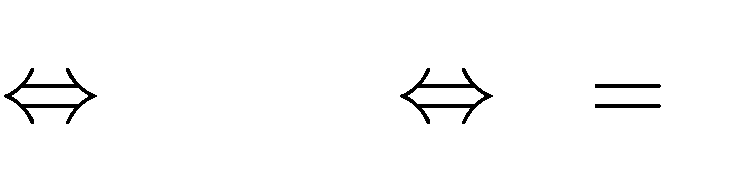
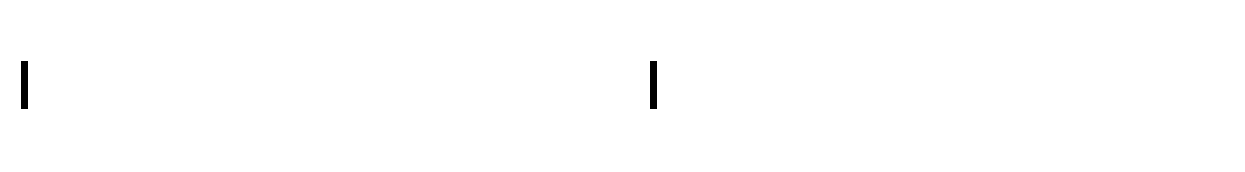
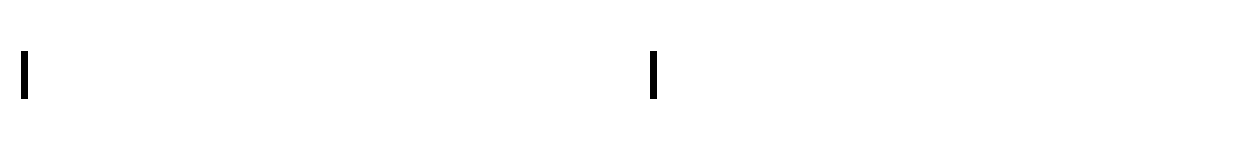
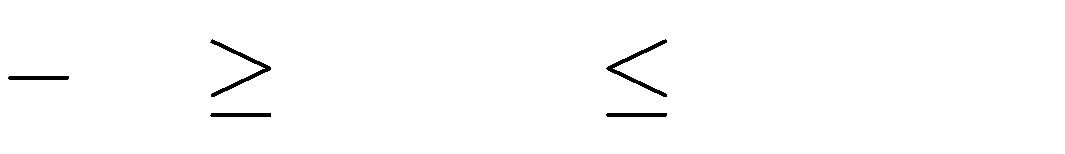
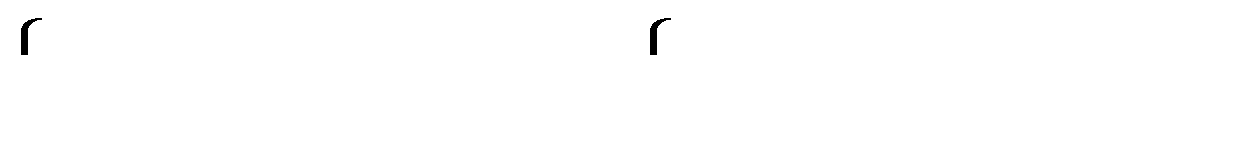
1 *y*

5

*n*

1

Để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho biểu thức *C* khi



12 3*n* 3

*n* 3

*n*

*n*

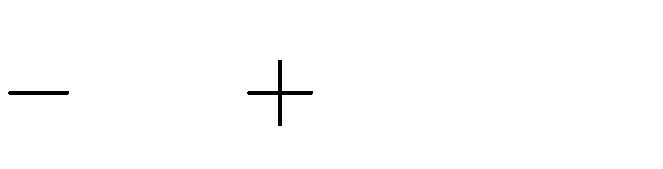
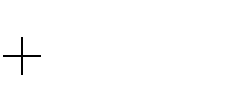
3

3

*n* 3

# Bài 6.

1. Để



4*xn* 2

5*x*3

: 2*x* là phép chia hết khi

4*xn*

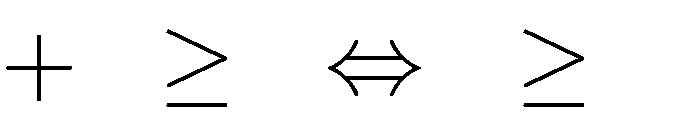


2

chia hết cho 2*x* khi *n*

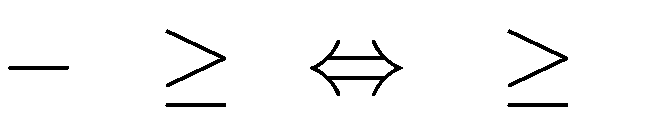
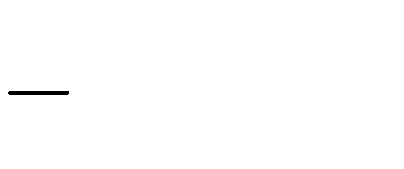
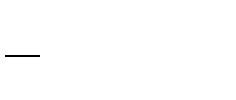


2



2 2 *n* 0

1. Để



2 1 *n* 3

2*x*4

5*x*3

*xn* 2

: 3*x*2

là phép chia hết khi *xn*

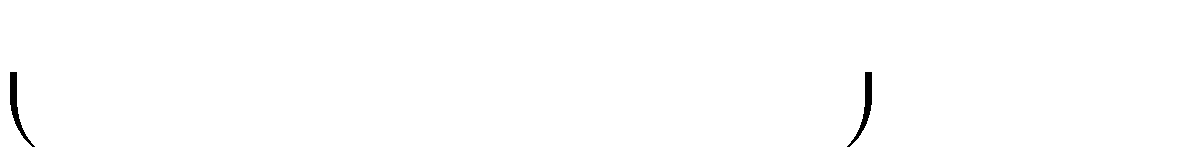
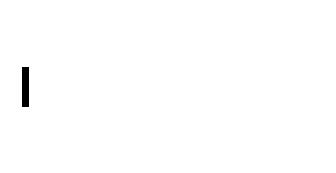
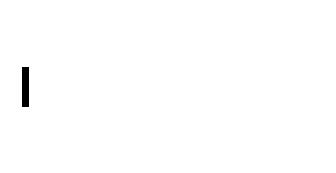
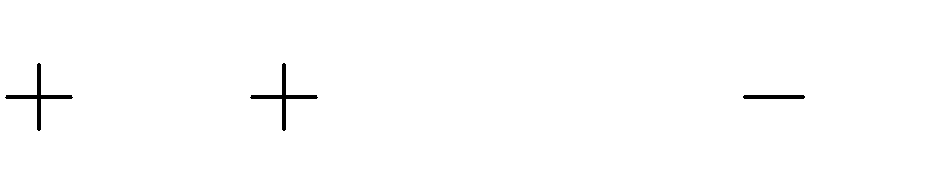
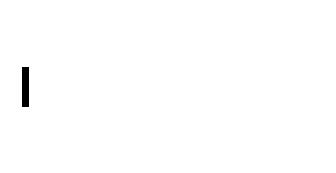
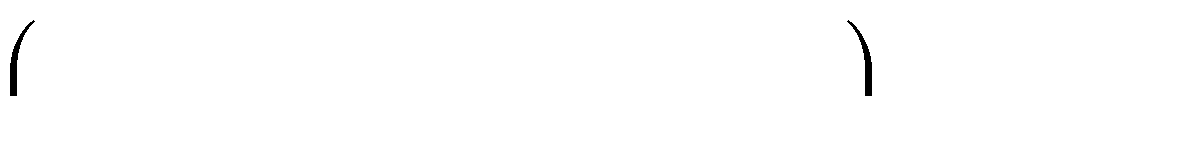
chia hết cho 3*x*2 khi *n*

1. Để

là phép chia hết khi 3*xn* chia hết cho

khi *n*

# Bài 7.



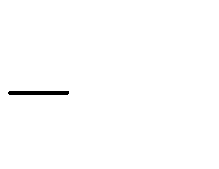
1 *x*4

2

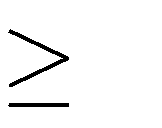
3*xn*

0, 25*x*2 :

*x*2



*x*2



2

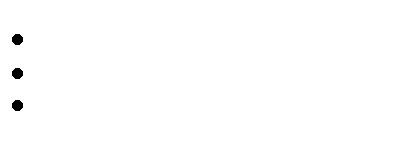
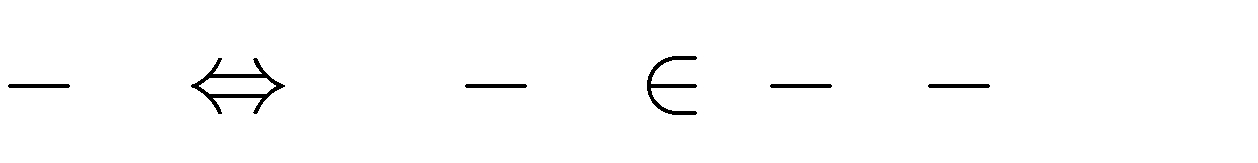
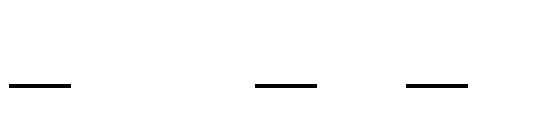
Ta có:

4*n*3



4*n*2 *n* 1 2*n* 3 . 2*n*2 *n* 1 2

Để biểu thức

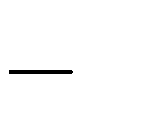


4*n*3

4*n*2

*n* 1 chia hết cho biểu thức 2*n* khi

1. 2*n*

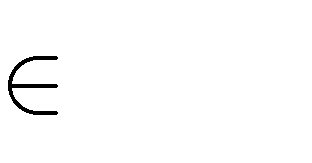


3

1. 2*n*

3 2; 1;1; 2

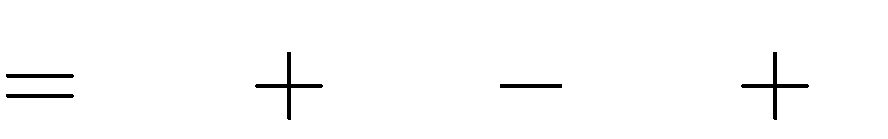
Vậy *n*



1; 2

# Bài 8.

1. Để *A*

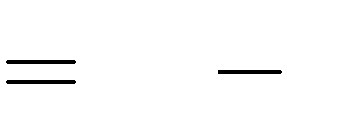


3*n*3 8*n*2 15*n* 6

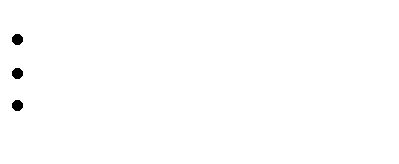
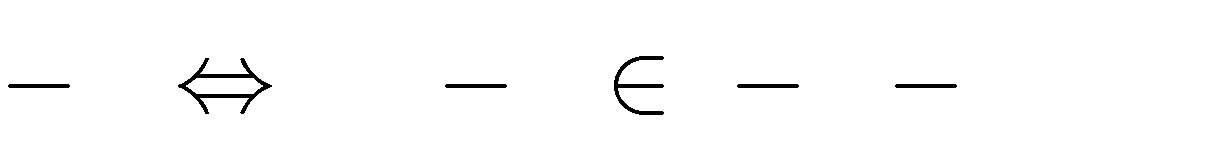
chia hết cho *B*

khi 2

Vậy *n*



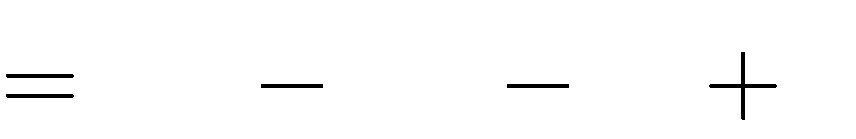
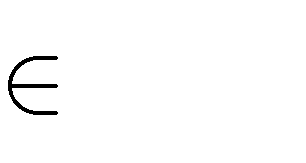
3*n* 1



3*n* 1

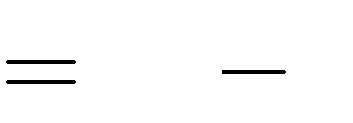
3*n* 1

2; 1;1; 2

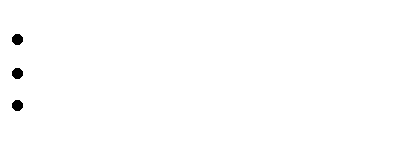
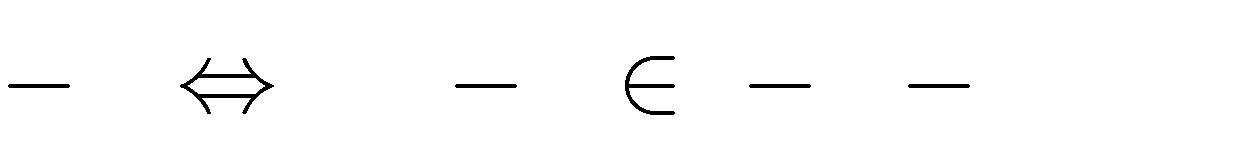


0,1

*A* 4*n*3 2*n*2 6*n* 5



2*n* 1



2*n* 1

2*n* 1

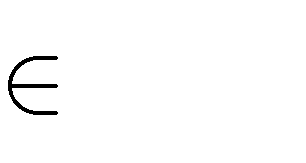
2; 1;1; 2

1. Để

chia hết cho *B*

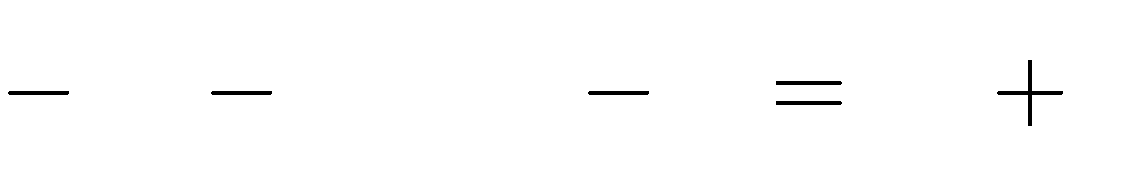
khi 2

Vậy *n*



0,1

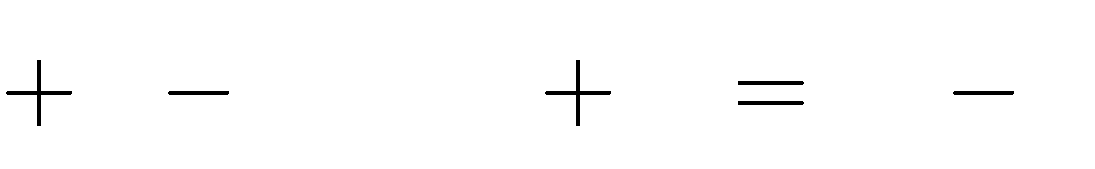
# Dạng 3. Vận dụng phép chia đa thức một biến vào bài toán ứng dụng Bài 1.



5 *y* 2 : 3*y* 2 4 *y* 1

Chiều dài của một hình chữ nhật là:

# Bài 2.



*y* 6 : 3*y* 2 5 *y* 3

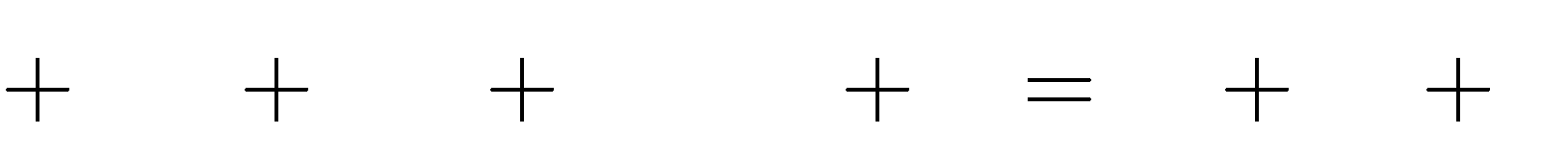
12 *y*2 cm

Chiều rộng của một hình chữ nhật là:

# Bài 3.

15 *y*2 cm

Diện tích đáy của một hình hộp chữ nhật là *x*3



9*x*2 23*x* 15 : *x* 5

*x*2

4*x* 3

# Bài 4.

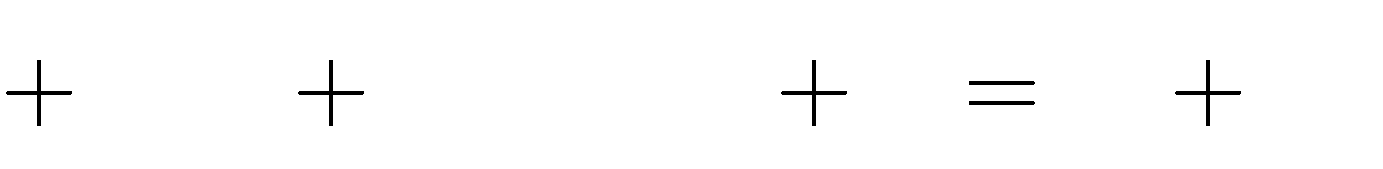
cm2

Chiều cao của hình hộp chữ nhật là:

# Bài 5.

Chiều cao của hình hộp chữ nhật là:

# Bài 6.



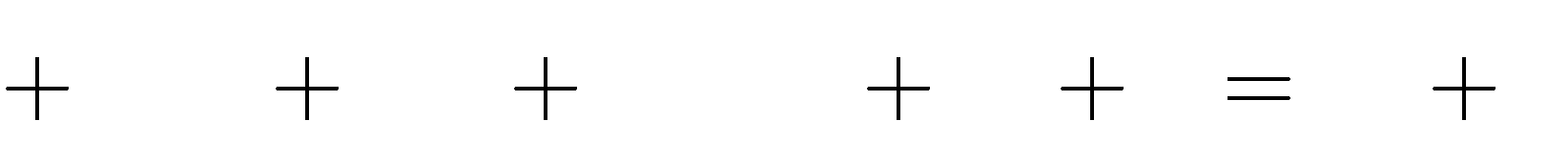
17*x*2 30*x* : 2*x* 5

*x*2

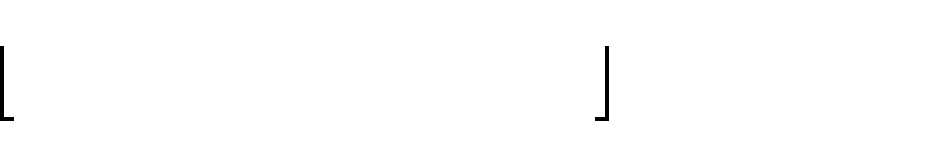
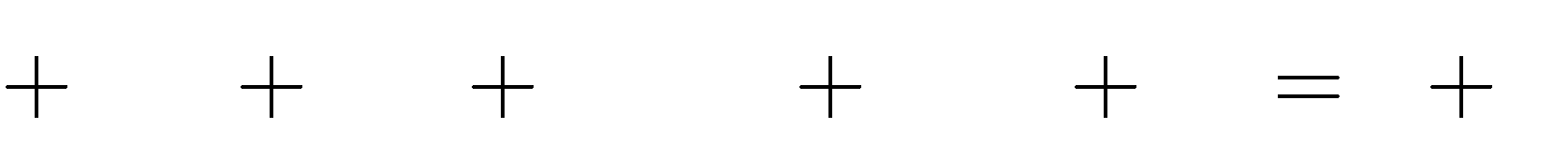
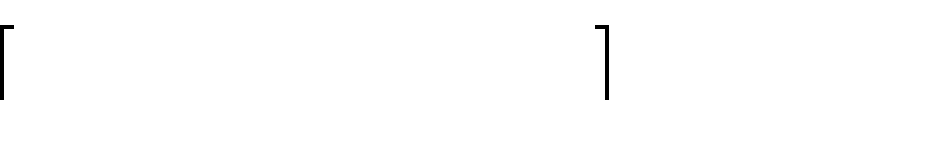
6*x*

2*x*3 cm

*x*3 cm



11*x*2 17*x* 5 : *x*2 3*x* 1 2*x* 5



7*x*2 14*x* 8 : *x* 1 . *x* 2

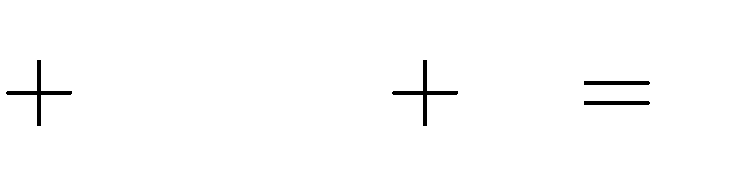
*x* 4

Diện tích đáy của một hình hộp chữ nhật là

2*x*3

cm2

Chiều rộng của hình hộp chữ nhật là *x*2 cm

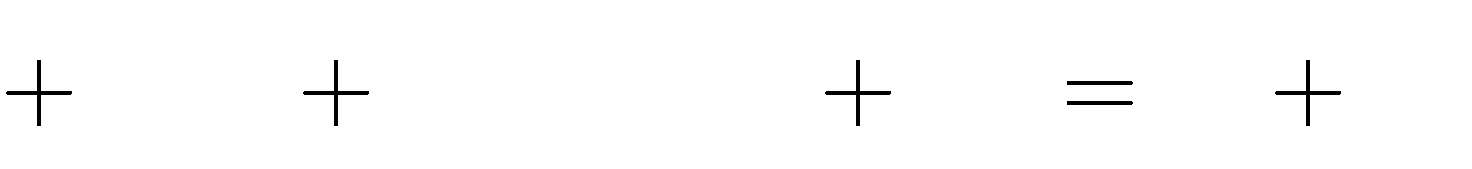


6*x* : *x* 6 *x*

# Bài 7.

Số sản phẩm mà công ty đó đã bán được là:

6*x*2



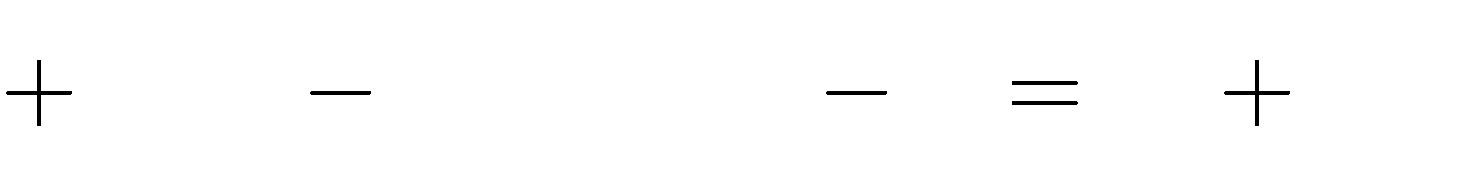
170*x* 1100 : 2*x* 20 3*x* 55

# Bài 8.

(sản phẩm)

Số sản phẩm mà công ty đó đã bán được là:

18*x*2



510*x* 1692 : 2*x* 6 9*x* 282

# Dạng 1. Thực hiện tính Bài 1. Tính

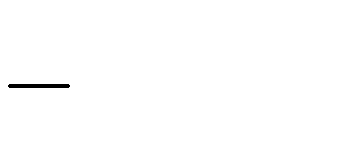
(sản phẩm)

# PHIẾU BÀI TẬP

***( Nội dung là toàn bộ bài tập đã có trên )***

1. 3*x*7

b)

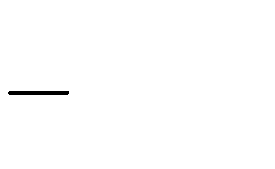


2*x* : *x*

: 1 *x*4

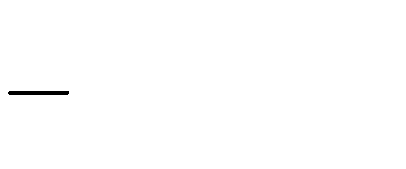
2

c) 0, 25*x*5 :



5*x*2

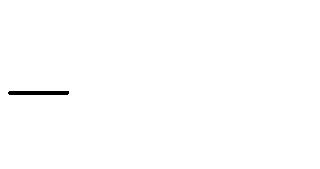
**Bài 2.** Tính a) 12*x*3 : 4*x* b)



2*x*4 : *x*4

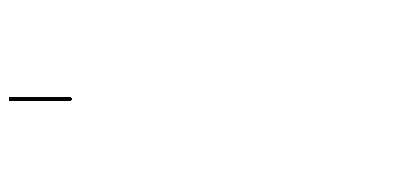
c) 2*x*5 : 5*x*2

**Bài 3.** Tính a) 120*x*7:



24*x*5

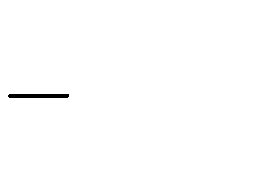
1. 3 4



*x* 3 : 1 *x*

8

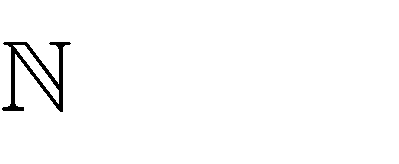
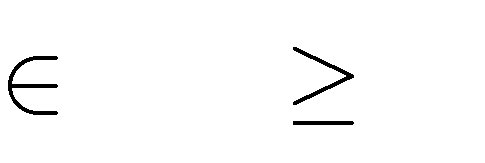
c) -3,72*x*5 :



4*x* 2

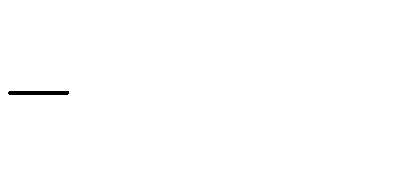
**Bài 4.** Tính

a) 12*x*4 : 6*x*2



; *m n*

b)



24*xm* :

**Bài 5.** Tính

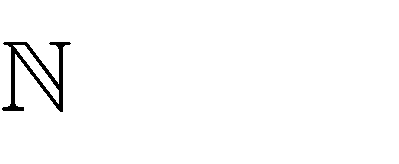
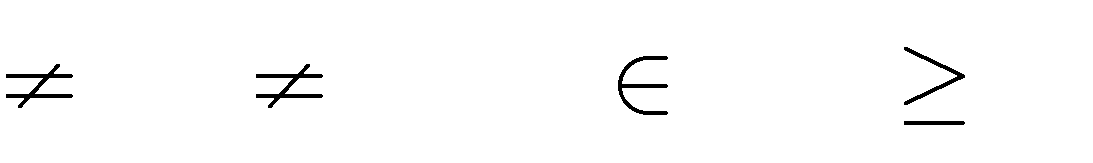
6*xn*

*m*, *n*

a) 3*x*6 : 0, 5*x*4

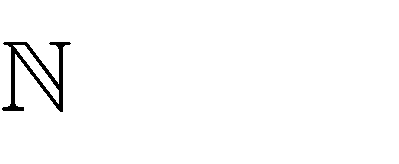
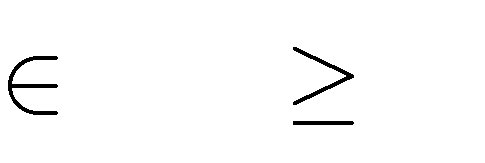
d) 4*x*3 : *x*2

c) *axm* : *bxn a*



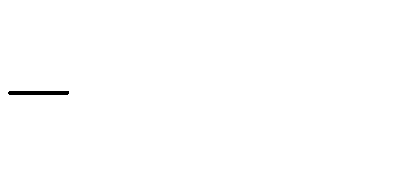
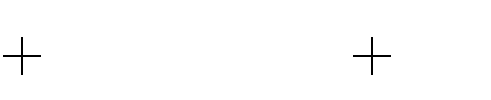
0;*b* 0; *m*, *n*

; *m n*



; *m n*

d)

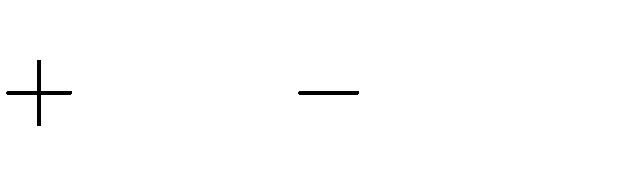


12*xm* 2 : 4*xn* 2

**Bài 6.** Tính

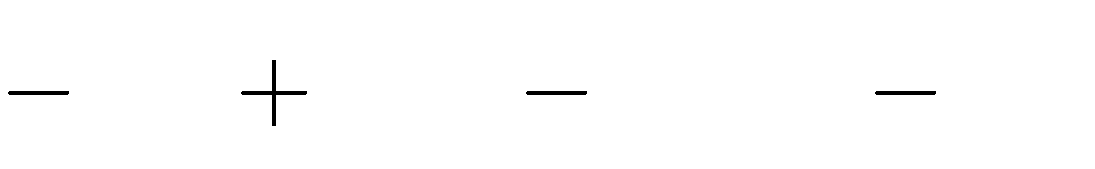
*m*, *n*

a) *x*3

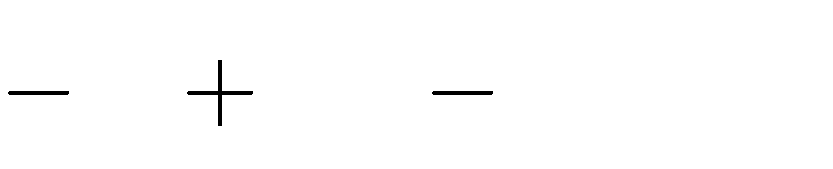


12*x*2 5*x* : *x*

b)



5*x*4 15*x*3 18*x* : 5*x*

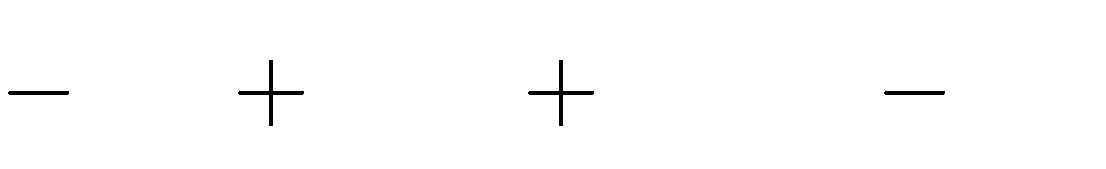


c)

*x*6

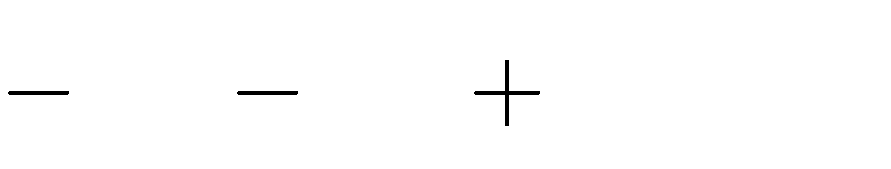
5*x*4 2*x*3 : 0, 5*x*2

**Bài 7.** Thực hiện các phép chia đa thức sau a)

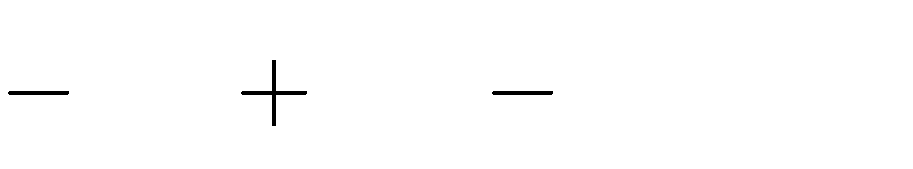


3*x*3 15*x*2 81*x* : 3*x*

b)

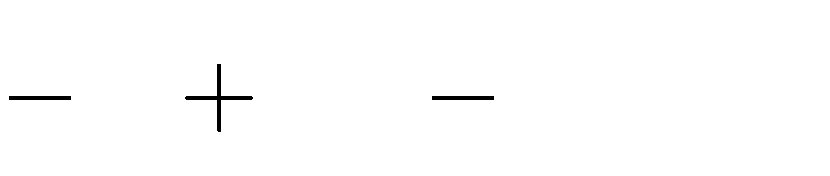


3*x*5 5*x*3 *x*2 : 2*x*2



c) 6*x*5 7*x*4 6*x*3 : 3*x*3

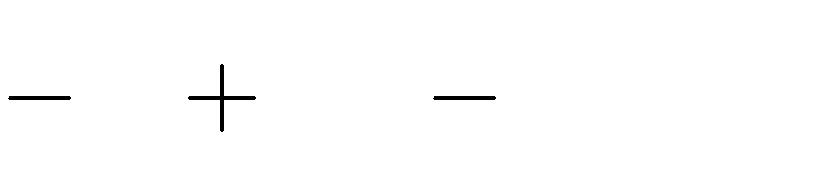
**Bài 8.** Thực hiện phép chia

a) *x*5

5*x*4

2*x*2

: 0,5*x* 2



b)

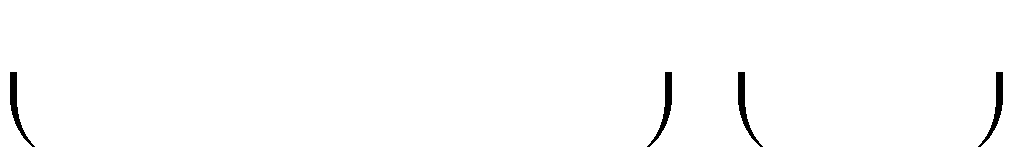
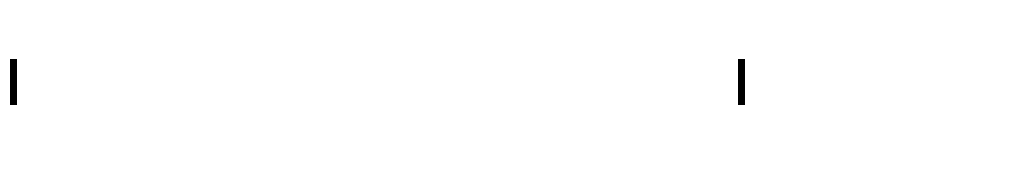
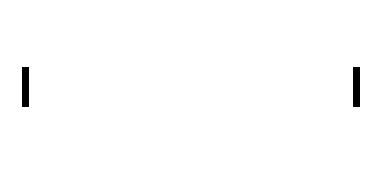
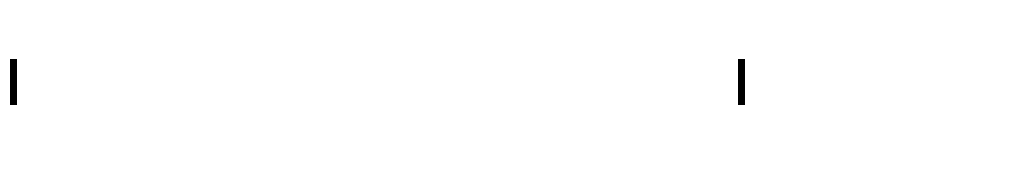
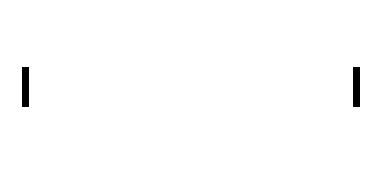
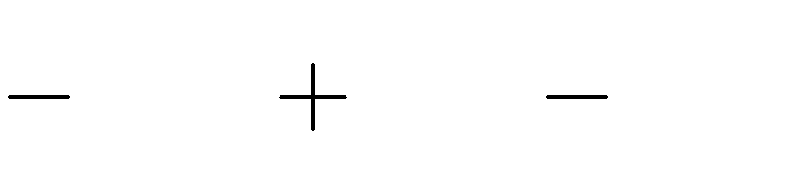
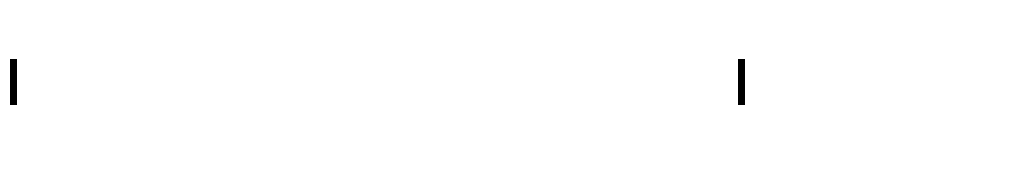
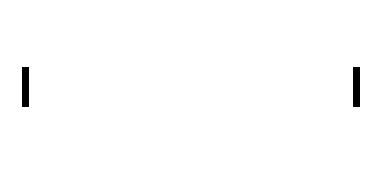
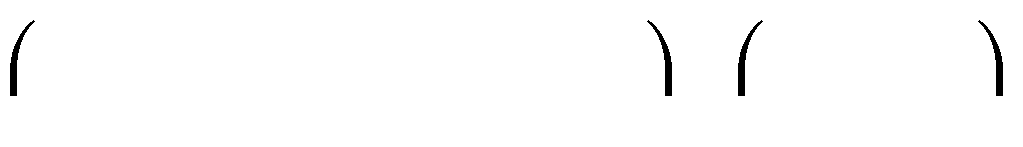
*x*6

5*x*5

2*x*4 : 2*x*2

2

**Bài 9.** Thực hiện phép chia a)



1 *x*4

2

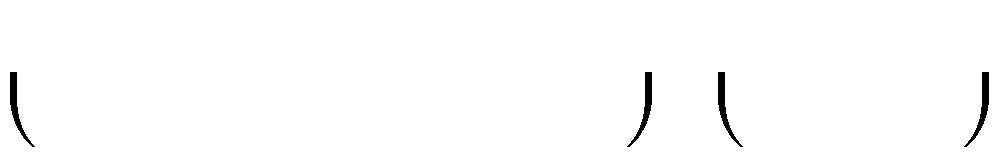
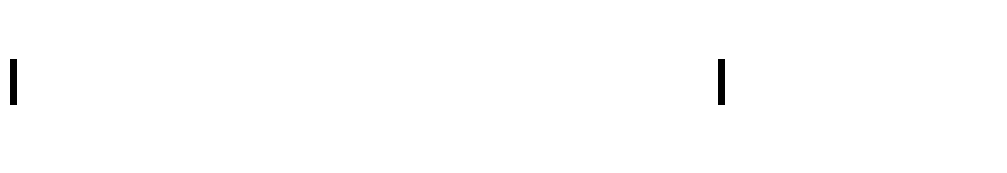
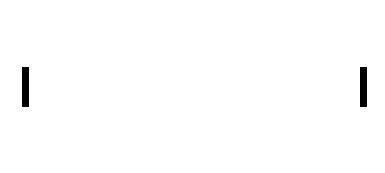
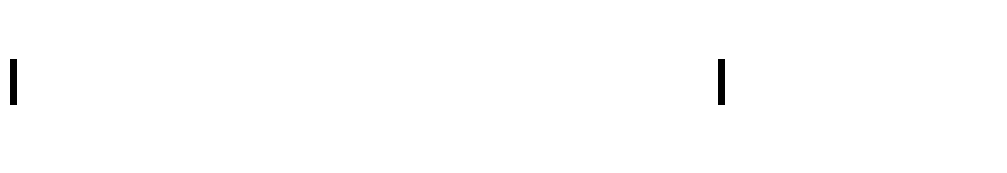
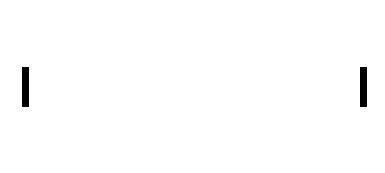
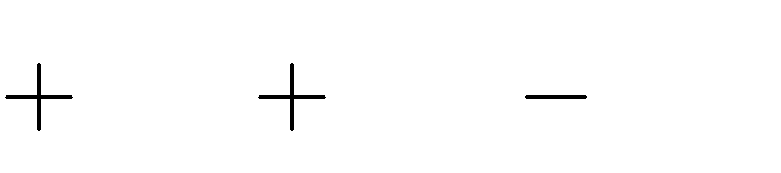
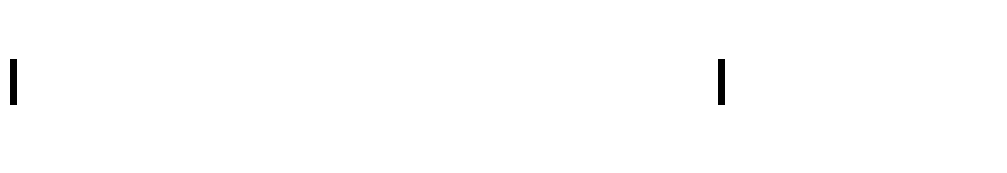
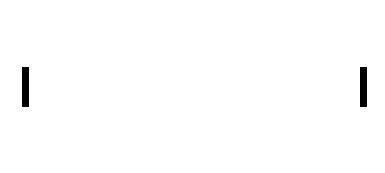
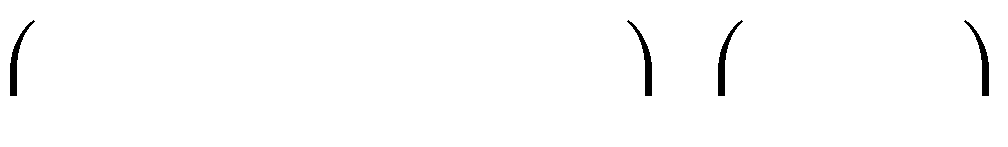
1 *x*3

4

*x* :

1 *x*

8



1 *x*5

2

2*x*2

*x* :

1 *x*

4

b)

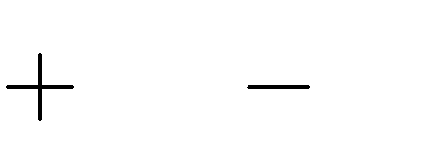
**Bài 10.** Thực hiện phép chia

0, 25*x*7

3*x*5

*x*4 cho 0, 5*xn*

trong mỗi trường hợp sau:

1. *n*



3

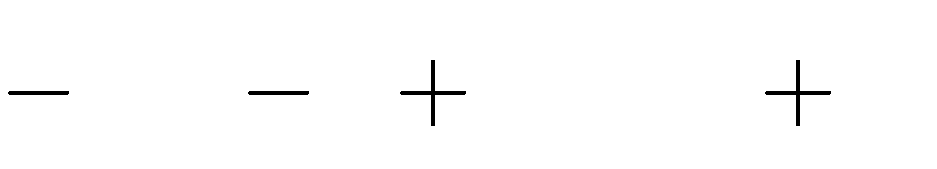
1. *n*



4

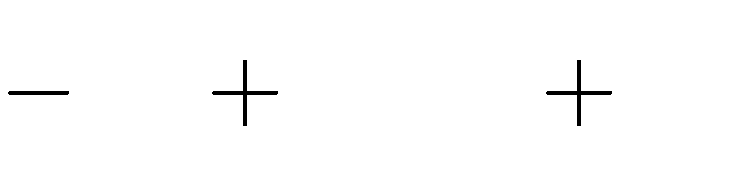
**Bài 11.** Tính

1. 2*x*3



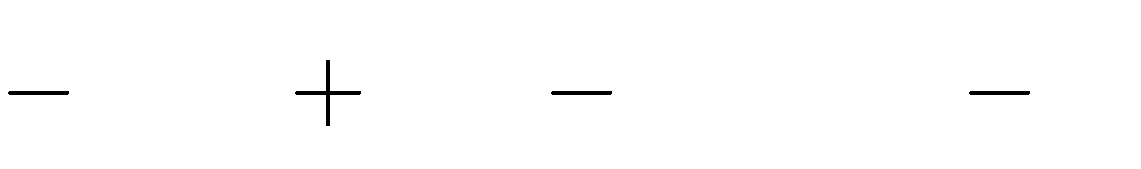
5*x*2 *x* 1 : 2*x* 1

1. *x*3



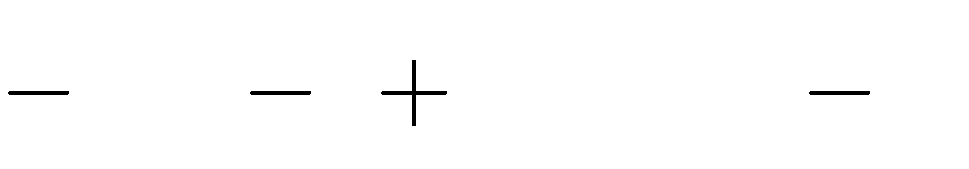
2*x* 4 : *x* 2

1. 6*x*3



19*x*2 23*x* 12 : 2*x* 3

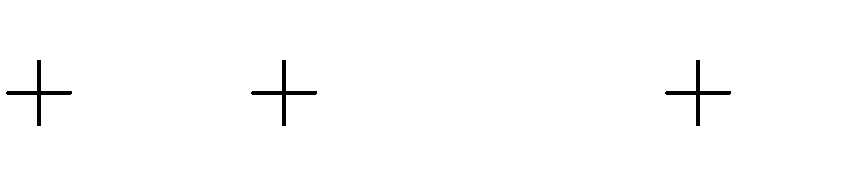
1. *x*4



2*x*3 1 2*x* : *x*2 1

**Bài 12.** Thực hiện phép chia đa thức sau

a) *x*4



8*x*2 16 : *x*2 4

b)

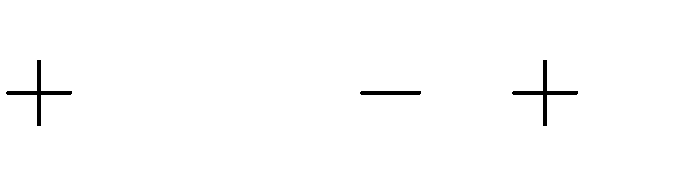


*x*2

25 : *x*

5

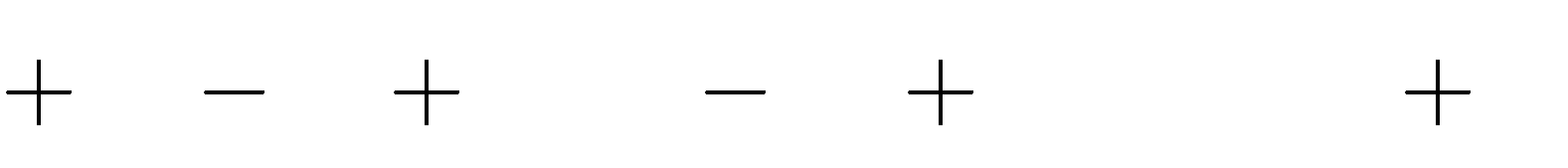
c) *x*3



1 : *x*2 *x* 1

**Bài 13.** Thực hiện phép chia

a) 0, 5*x*6

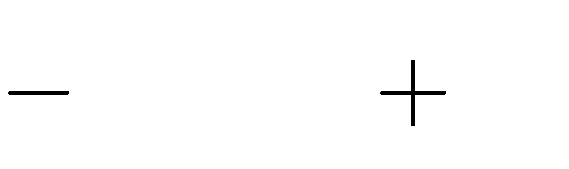


*x*4 *x*3

1, 5*x*2

2*x* 3 : 0, 5*x*2 1

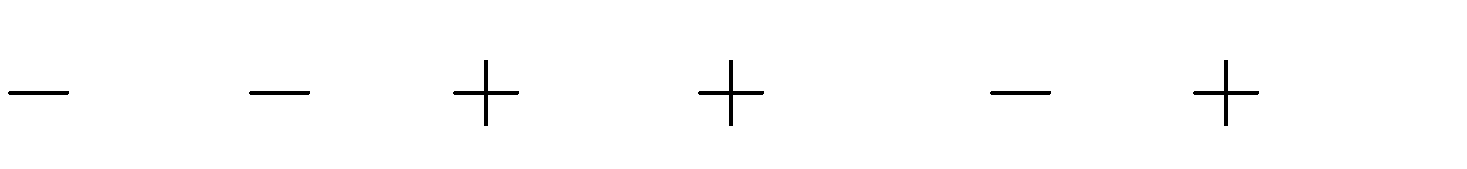
b) 9*x*2



4 : 3*x* 2

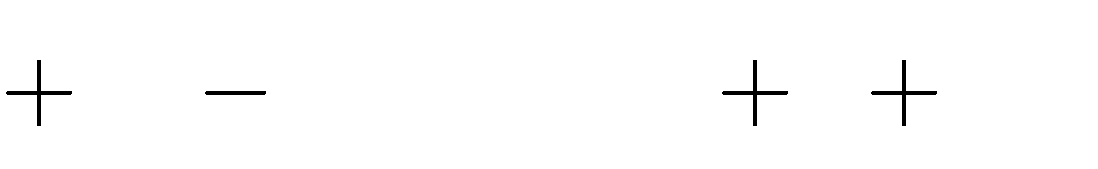
**Bài 14.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

1. 4*x*2



4*x*3 4*x* 3*x*4 1 : 1 4*x* 3*x*2

1. 9



*x*4

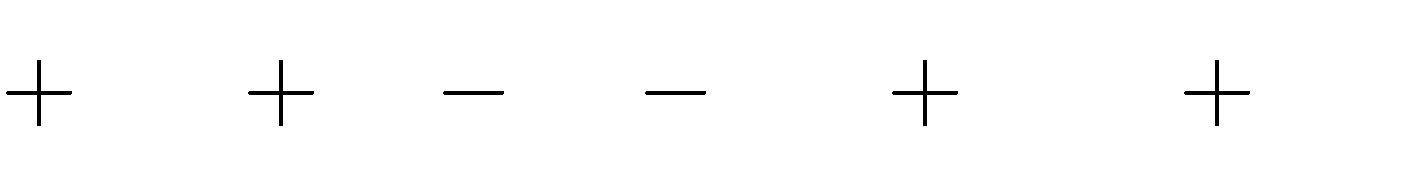
10*x*2 : 4*x*

3

*x*2

**Bài 15.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

1. 3*x*2



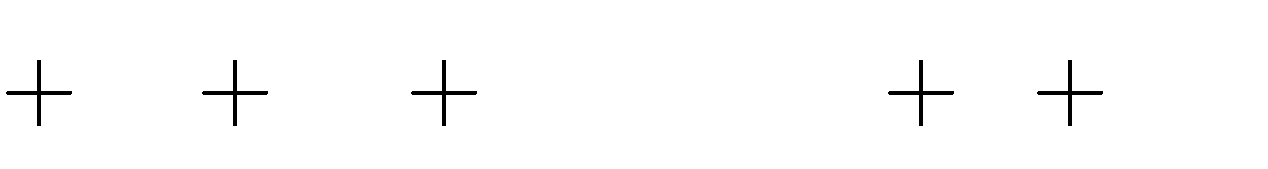
3*x*5

*x*3

4*x* 4*x*4 1 : 1

*x*3

1. 3



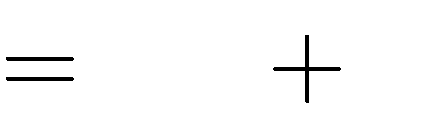
*x*3

7*x* 5*x*2 : 4*x*

3

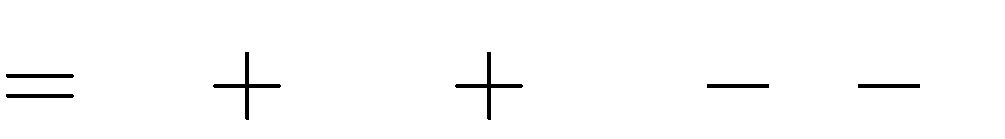
*x*2

**Bài 16.** Tìm thương *Q* và dư *R* sao cho *A* biết



*B*.*Q R*

1. *A*

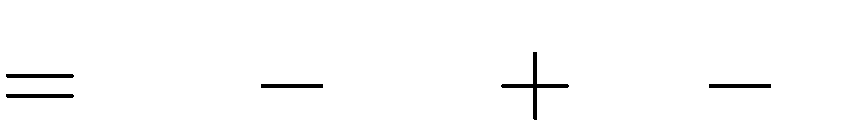


*x*4

3*x*3

2*x*2 *x* 4

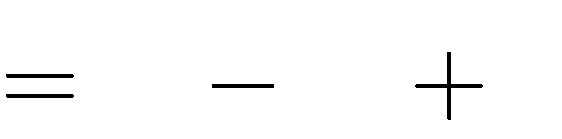
1. *A*



2*x*3 3*x*2 6*x* 4

và *B*

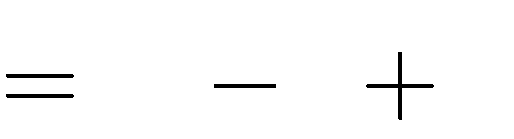
và *B*



*x*2

2*x*

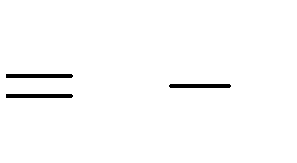
3

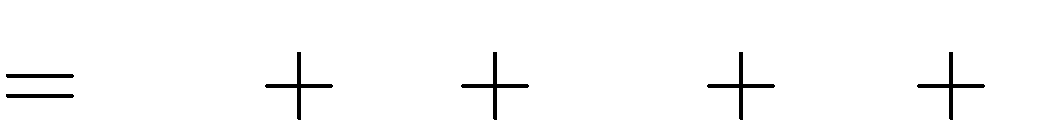


*x*2

*x*

3

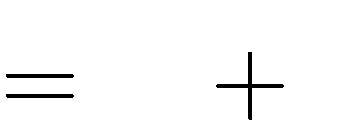
1. *A* và *B*



2*x*4

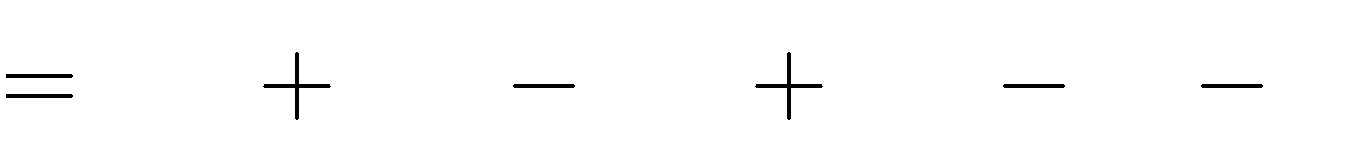
*x*3

3*x*2 4*x* 9



*x*2

1



4*x*4 6*x*2 7*x*3 7*x*3 5*x* 6

**Bài 17.** Cho hai đa thức *A x*

và đa thức

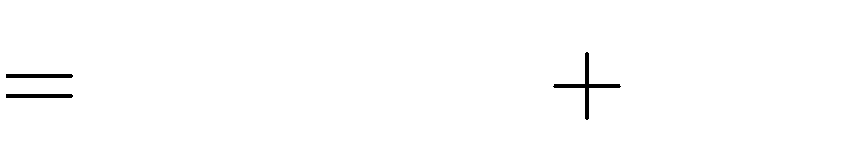
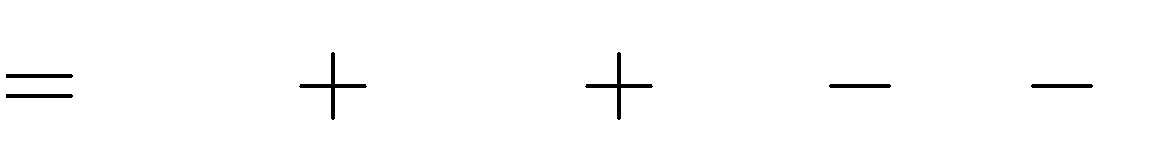
*B x x*

1. Tìm

thương và đa thức dư của phép chia

*A x* : *B x*

**Bài 18.** Tìm thương *Q x* và dư *R x* trong phép chia cho



*F x* 15*x*4

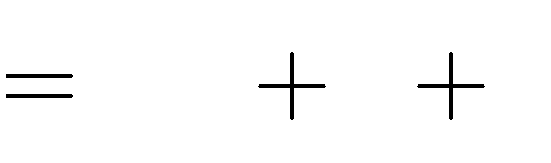
*G x* .*Q x*

19*x*3

*R x*

8*x*2 2*x* 3

*G x* rồi biểu diễn *F x* dưới dạng *F x*

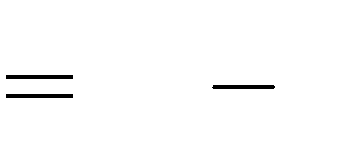


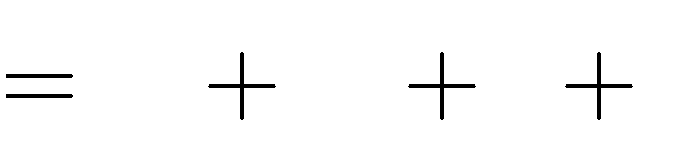
3*x*2 *x* 1

**Bài 19.** Cho đa thức *P x*

và *Q*(*x*)

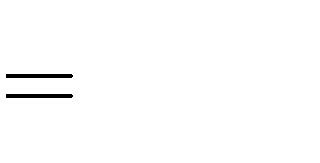
*x*4 1 . Tìm đa thức *A x* sao cho

*P x* .*A x*



*x*3 *x*2

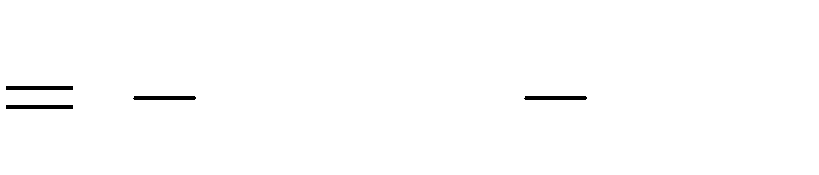
*x* 1



*Q x*

**Bài 20.** Thực hiện phép tính

1. *A*

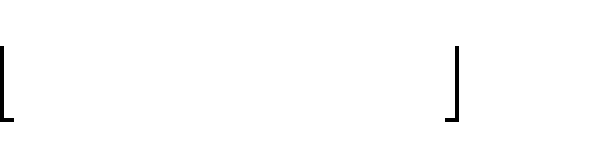
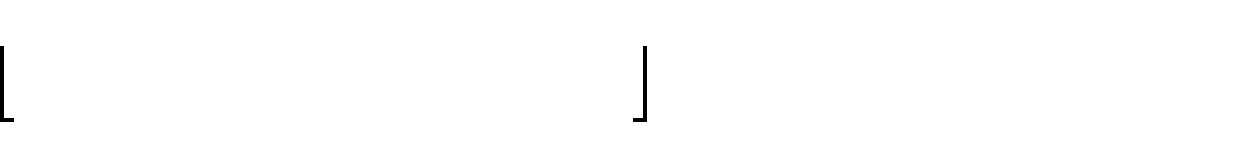
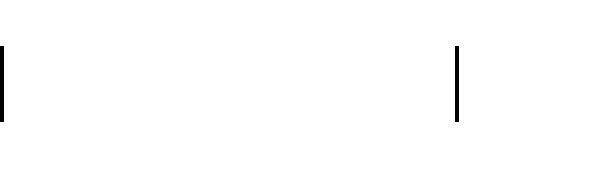
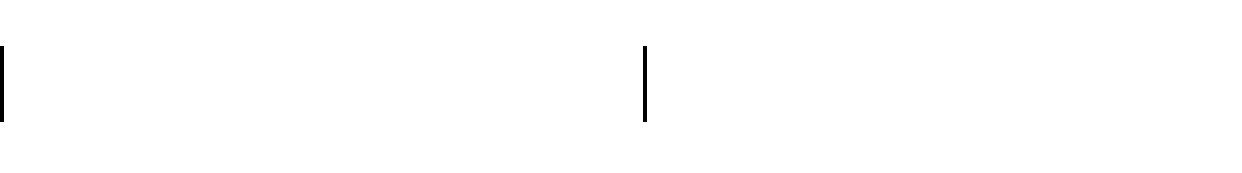
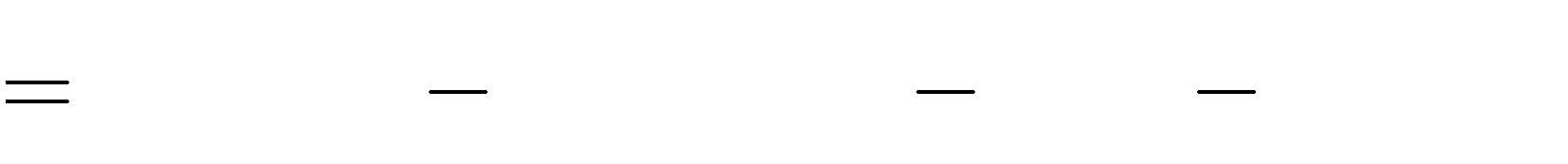
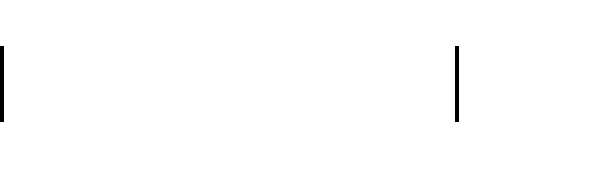
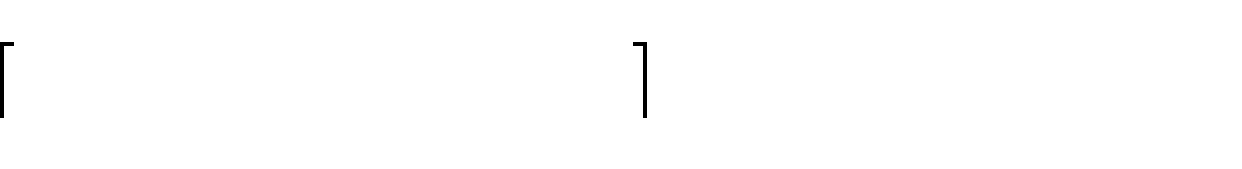
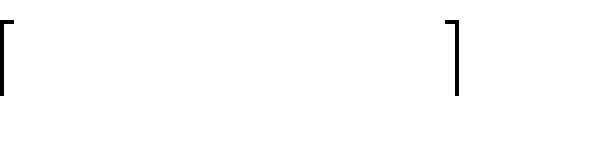


15*x*4 :

3*x*2

2

1. *B*



75 *x*2

2

45*x*4 : 3*x*2

5

2

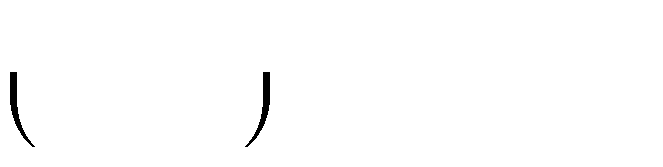
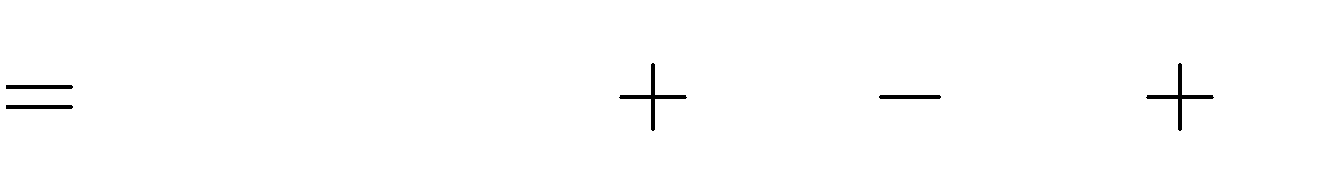
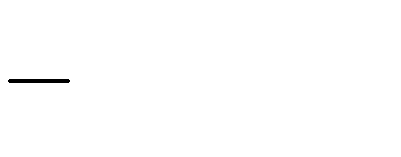
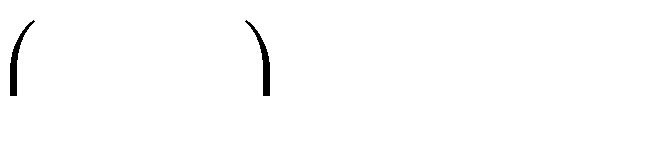
*x*2

2*x*2 :

1

2

1. *C*



2 *y*3 :

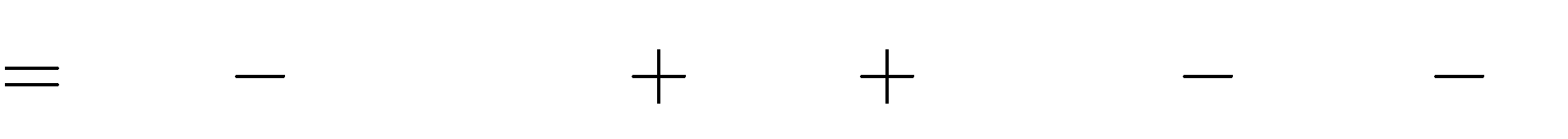
3

1 *y*

3

2 *y* 1 *y* 1

1. *D*

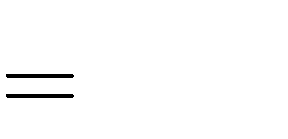


5*x*3 4*x*2 : 2*x*2 3*x*4 6*x* : 3*x x*. *x*2 1

# Dạng 2. Tìm điều kiện của *n* để phép tính cho trước là phép chia hết

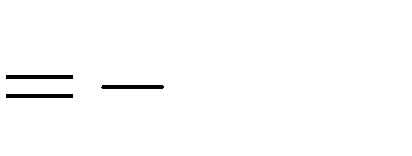
**Bài 1.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

1. *A*



15*x*3

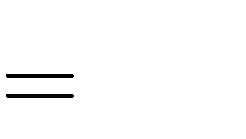
1. *A*



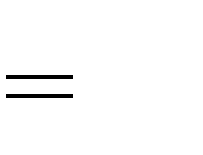
0, 5*y*6

và *B*

và *B*



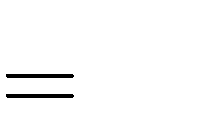
5*x*2



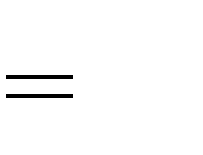
*y*3

**Bài 2.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

1. *A* và *B*

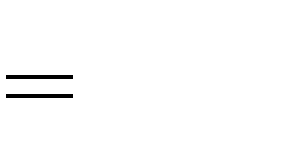


*x*5

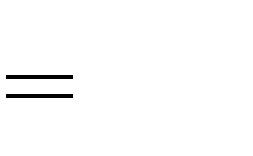


*y*3

1. *A* và *B*



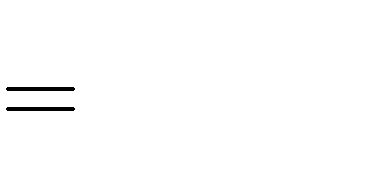
15 *y*2



5*y*3

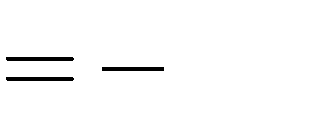
**Bài 3.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay

không? *A* và *B*



3 1 *z*4

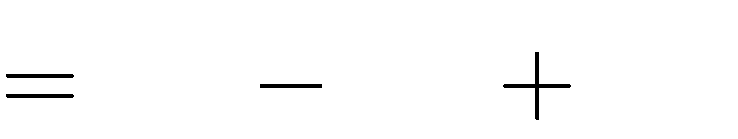
2



2,5

**Bài 4 .** Ai đúng, ai sai?

Khi giải bài tập: “Xét xem đa thức *A*



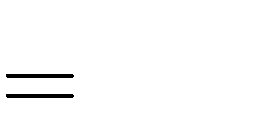
5*x*4 4*x*3 6*x*2

không”

có chia hết cho đơn thức *B*

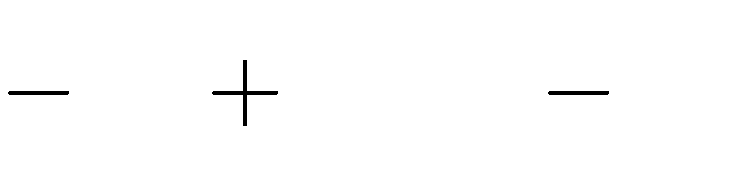
hay

Hà trả lời: “ *A* không chia hết cho *B* vì 5 không chia hết cho 2”,



2*x*2

Quang trả lời: “ *A* chia hết cho *B* vì mọi hạng tử của *A* đều chia hết cho *B* ”. Cho biết ý kiến của em về lời giải của hai bạn.



4*x a* : *x* 2

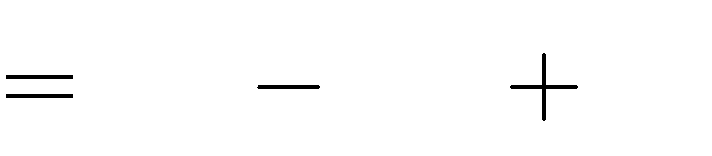
**Bài 5.** Bạn Tâm lúng túng không biết làm thế nào để phép chia *x*3

chia hết? Em có thể giúp bạn Tâm được không?

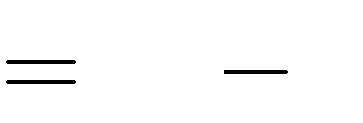
**Bài 6.** Tìm *m* sao cho đa thức *A* chia hết cho đa thức *B* biết:

là phép

1. *A B*

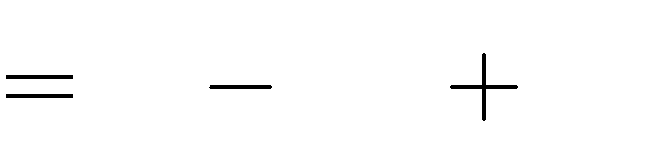


8*x*2 26*x m*;



2*x* 3

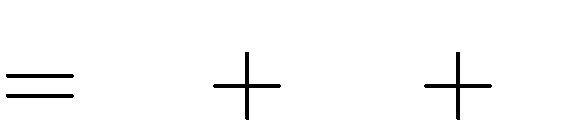
1. *A B*



*x*3

13*x*

*m*;

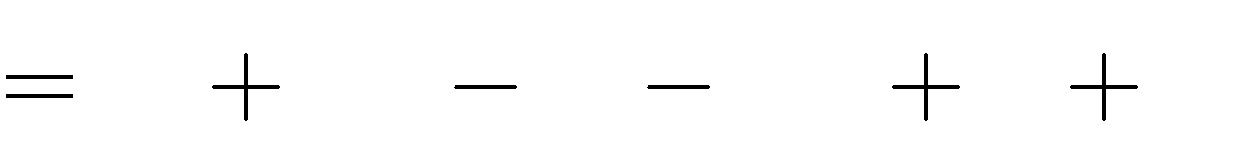


*x*2

4*x*

3

1. *A B*



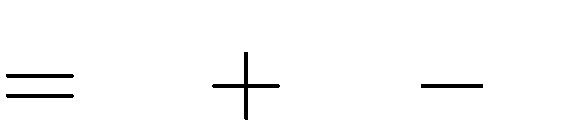
*x*4

5*x*3

*x*2

17*x*

*m* 4;

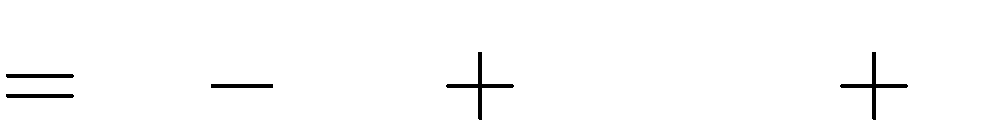


*x*2

2*x* 3

**Bài 7.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

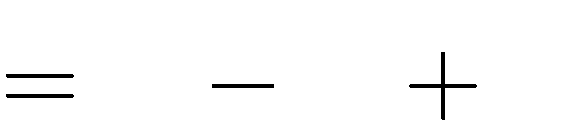
1. *A* và *B*



*x*4

3*x*3

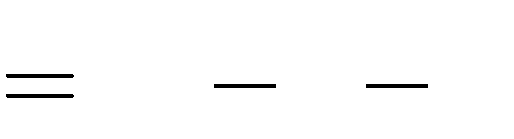
3*x*2 +a*x b*



*x*2

3*x*

4

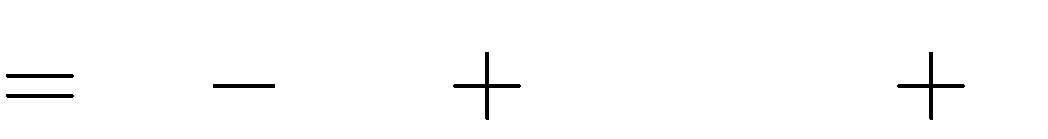


*x*2

*x*

2

1. *A*

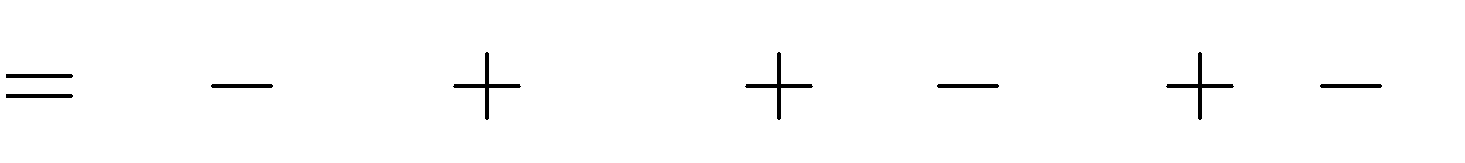


*x*4

9*x*3

21*x*2 +a*x b*

1. *A*



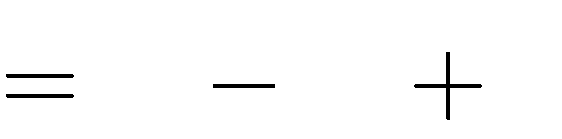
*x*4

7*x*3

10*x*2 *a* 1 *x b a*

và *B*

và *B*



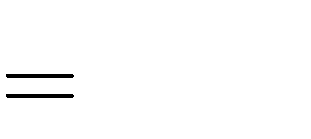
*x*2

6*x*

5

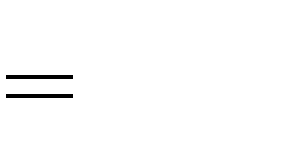
**Bài 8.** Tìm điều kiện của *n* để biểu thức *A* chia hết cho biểu thức *B*

1. *A*



18*x*10

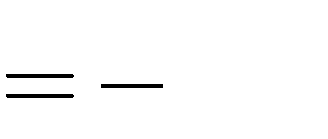
1. *A*



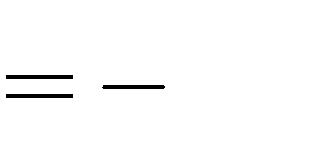
18*yn*

và *B*

và *B*

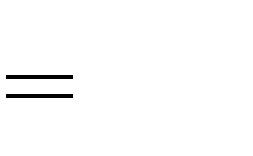


6*xn*

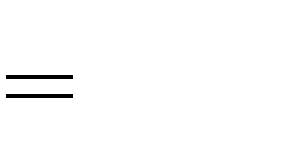


6 *y*3

**Bài 9.** Tìm số tự nhiên *n* để đơn thức *A* chia hết cho đơn thức *B*

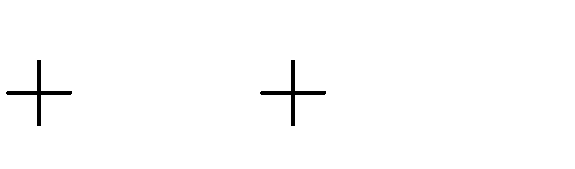


3*y*4



23 *yn*

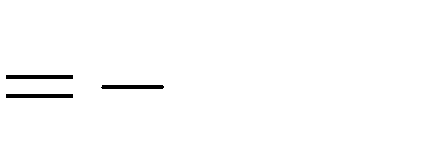
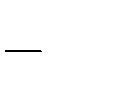
**Bài 10.** Tìm điều kiện của *n* là số tự nhiên để phép chia sau là phép chia hết *x*4



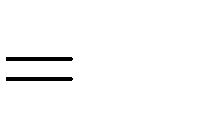
2*x*2 1 : *xn*

**Bài 11.** Tìm điều kiện của *n* để biểu thức *A* chia hết cho biểu thức *B*

1. *A B*

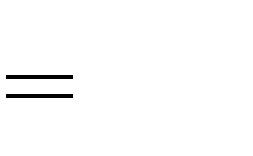
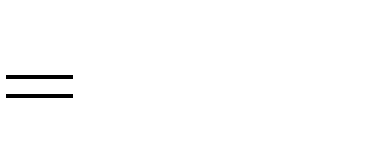


12*zn* 1;



2*z*

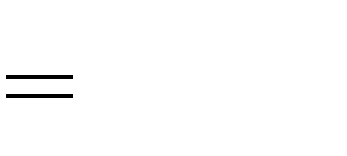
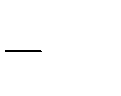
1. *A* 16 *yn* 1 ; *B*



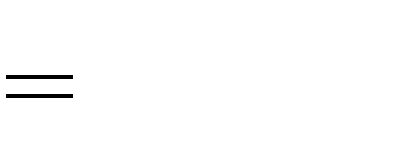
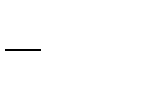
8*y*2

**Bài 12.** Tìm các giá trị nguyên của n để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho

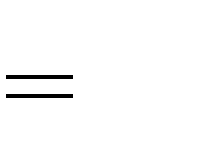
biểu thức *C* biết: *A B C*



*y*2*n* 6 ;



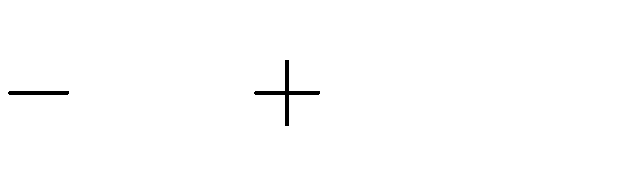
2 *y*18 2*n* ;



*y*4

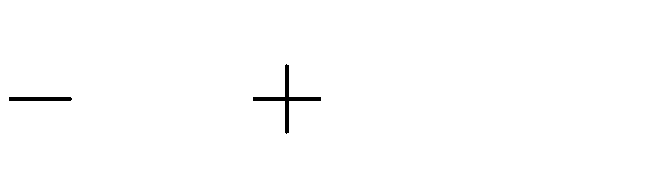
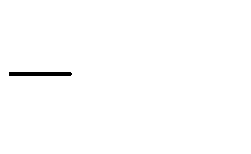
**Bài 13.** Tìm *n* để những phép tính sau là phép chia hết ( *n* là số tự nhiên)

1. 5*x*3



7*x*2 *x* : 3*xn*

1. 2 *y*4



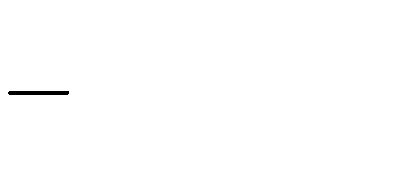
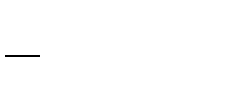
5*y*3 6 *y*2 :

1 *yn*

5

**Bài 14.** Tìm số tự nhiên *n* để mỗi phép chia sau là phép chia hết

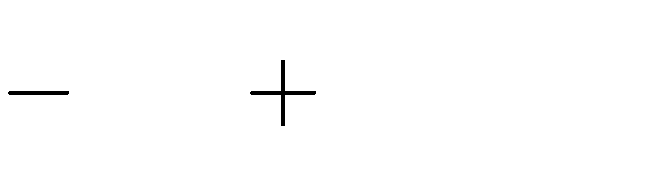
1. 4*xn* 2



5*x*3

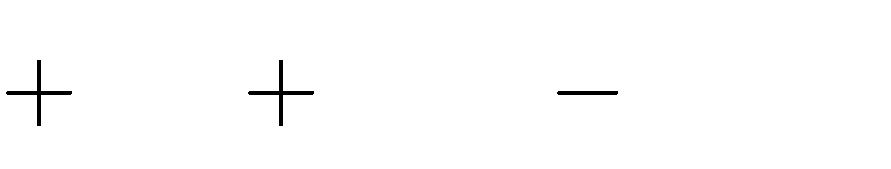
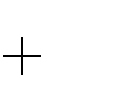
: 2*x*3

1. 2*x*4



5*x*2 *x* : 3*xn*

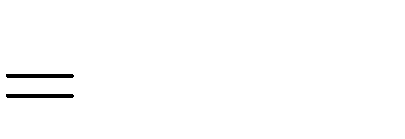
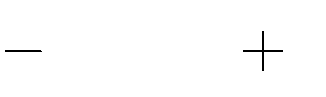
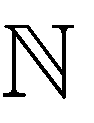
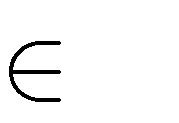
1. *x*4



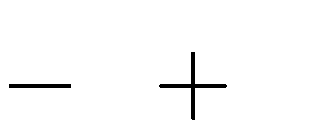
3*x*3 *x*2 :

4*xn* 1

**Bài 15.** Tìm *n* để biểu thức *A*



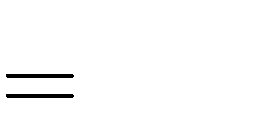
3*xn* 1-5*xn* 1

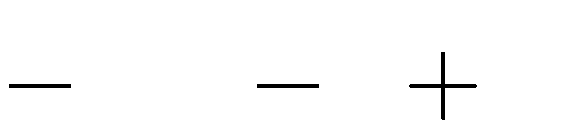


*n* 2

chia hết cho biểu thức *B*

2*x*3 .

**Bài 16.** Tìm giá trị nguyên của *n* để biểu thức



4*n*2 *n* 4

2*n*2

chia hết cho biểu thức 2*n* 1.

**Bài 17.** Tìm giá trị nguyên của *n* để biểu thức

4*n*3

chia hết cho biểu thức 2*n* 1.

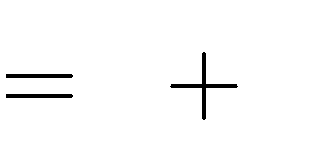
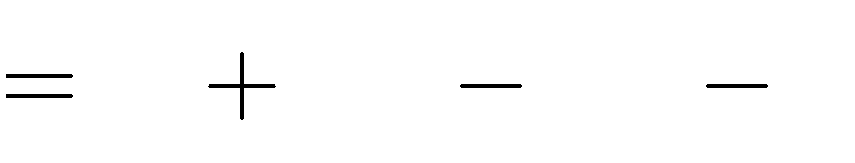
**Bài 18.** Tìm giá trị nguyên của *x* để biểu thức

1. *x x*3

4*x*2

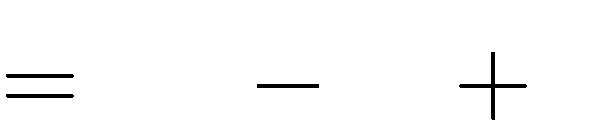
21*x*

7 chia hết cho biểu thức

1. *x x* 7 .

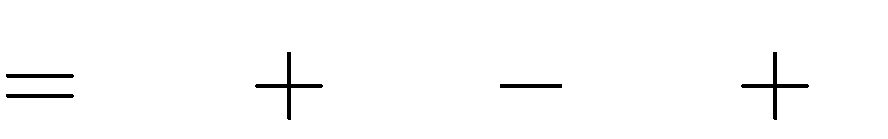
**Bài 19.** Tìm giá trị nguyên của *x* để đa thức *A* chia hết cho *B*

1. *A*



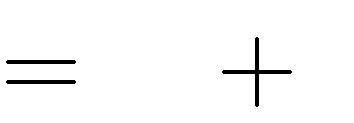
8*x*2 4*x* 1

1. *A*



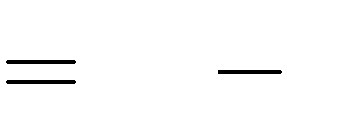
3*x*3 8*x*2 15*x* 6

và *B*



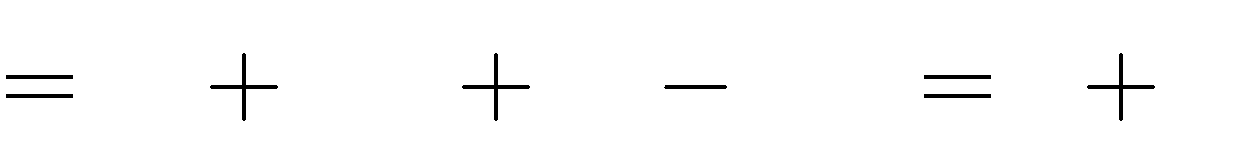
2*x* 1

và *B*



3*x* 1

**Bài 20.** Cho các đa thức sau: *A*



*x*3

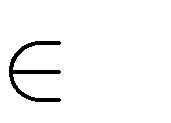
4*x*2

3*x* 7; *B x* 4

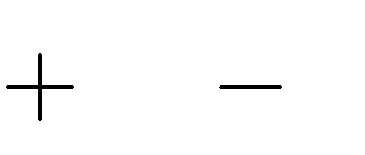
1. Tính

*A* : *B*

1. Tìm *x* sao cho *A* chia hết cho *B*



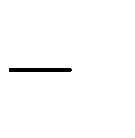
# Dạng 3. Vận dụng phép chia đa thức một biến vào bài toán ứng dụng



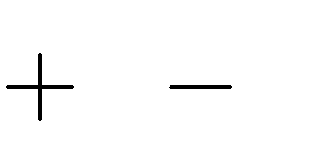
4 *y* 3

**Bài 1.** Tính chiều dài của hình chữ nhật có diện tích bằng

2 *y* cm .



1



*y* 2

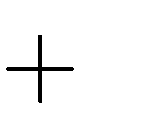
4 *y*2

cm2

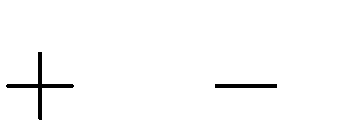
và chiều rộng

**Bài 2.** Tính chiều rộng của một hình chữ nhật có diện tích bằng

3*y* cm



2



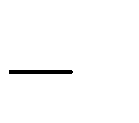
7*x* 3

6 *y*2

cm2

và chiều dài

**Bài 3.** Tính chiều dài của một hình chữ nhật có diện tích bằng rộng 3*x* cm



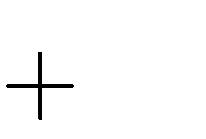
1

6*x*2

cm2

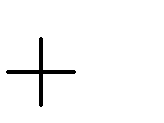
và chiều

**Bài 4.** Tìm cạnh của một hình vuông biết chu vi của hình vuông là 12*x*2 cm



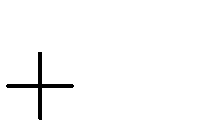
8*x*

**Bài 5.** Tính chiều cao ứng với cạnh đáy dài 2*x* cm của một tam giác với diện tích là



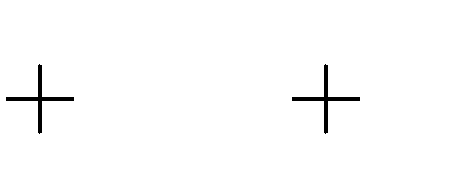
4

3*x*2 cm2



6*x*

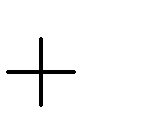
**Bài 6.** Tính cạnh đáy của một tam giác với diện tích là 15*x*2



23 *x* 3

2 2

tam giác là 5*x* cm



3

cm2

và chiều cao của

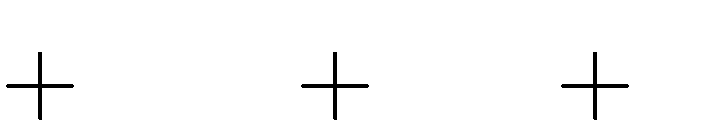
**Bài 7.** Quang có 3 túi bi, mỗi túi có 6*x*3 15*x*2 12*x*  3

viên bi. Quang muốn chia đều tất cả

số bi này vào 2*x* 1

chiếc hộp. Hỏi mỗi hộp có bao nhiêu viên bi.

**Bài 8.** Tìm tổng hai đáy của một hình thang biết diện tích của hình thang là



21*x*2 20*x* 6



3

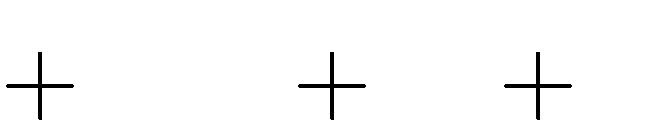
5*x*3

cm2

và chiều cao của hình thang là

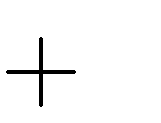
*x* cm .

**Bài 9.** Tính chiều cao của một hình thang biết diện tích hình thang là 3*x*3 cm2

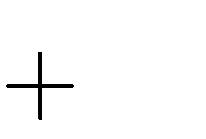


10*x*2 9*x* 2

; đáy bé và đáy lớn của hình thang lần lượt là 3*x* cm ; 6*x*2 cm .

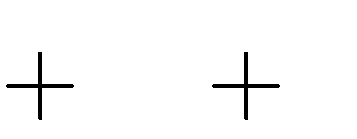


2



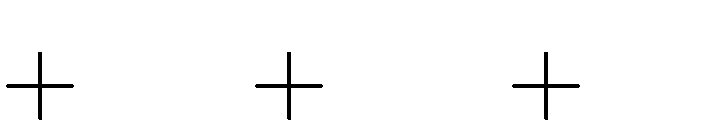
5*x*

**Bài 10.** Tính chiều cao của một hình hộp chữ nhật có diện tích đáy bằng *x*2 cm và



5*x* 3

có thể tích bằng *x*3 cm3 .



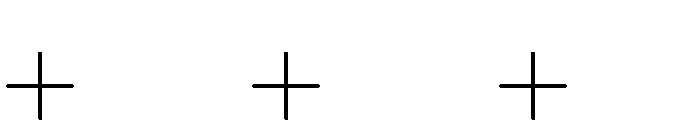
9*x*2 23*x* 12

**Bài 11.** Tính diện tích đáy của một hình hộp chữ nhật có chiều cao bằng *x* cm và có thể



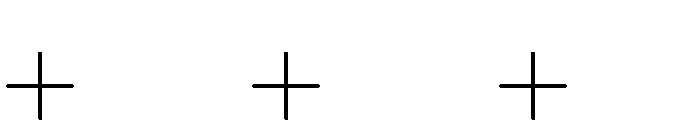
3

tích bằng *x*3 cm3 .



8*x*2 19*x* 12

**Bài 12.** Một hình hộp chữ nhật có thể tích là *x*3 (cm3). Biết đáy là hình chữ



8*x*2 19*x* 12



3



4

nhật có các kích thước theo *x*

*x* cm và

*x* cm . Tính chiều cao của hình hộp chữ nhật đó

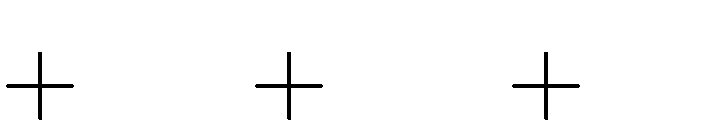
**Bài 13.** Một hình hộp chữ nhật có thể tích là *x*3

cm3

, chiều cao là

*x* cm

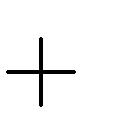
; chiều rộng là *x* cm . Tính chiều dài của hình hộp chữ nhật.



9*x*2 23*x* 15



3



1

**Bài 14.** Một hình hộp chữ nhật có thể tích là



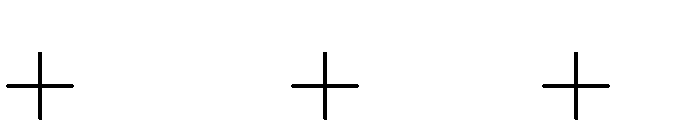
3

2*x*3

cm3

. Biết đáy là hình chữ

nhật có các kích thước 2*x* cm và theo *x*



11*x*2 17*x* 6



1

*x* cm . Tính chiều cao của hình hộp chữ nhật đó

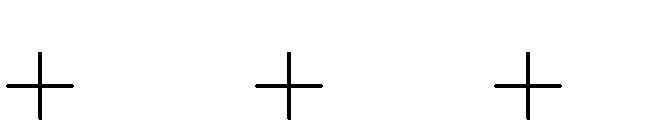
**Bài 15.** Một hình hộp chữ nhật có thể tích là *x*3

cm3

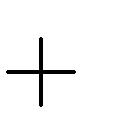
, chiều cao là

*x* cm ;

chiều dài là *x* cm . Tính chiều rộng của hình hộp chữ nhật.



6*x*2 11*x* 6

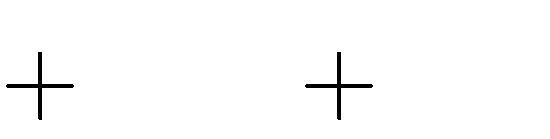


1



3

**Bài 16.** Một công ty sau khi tăng giá 20 nghìn đồng mỗi sản phẩm so với giá ban đầu là 3*x*



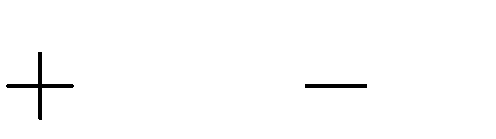
180*x* 800

(nghìn đồng) thì có doanh thu 9*x*2

đã bán được theo *x*

(nghìn đồng). Tính số sản phẩm mà công ty đó

**Bài 17.** Một công ty sau khi giảm giá 3 nghìn đồng mỗi sản phẩm so với giá ban đầu là 4*x*



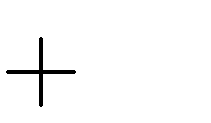
110*x* 96

(nghìn đồng) thì có doanh thu đã bán được theo *x* .

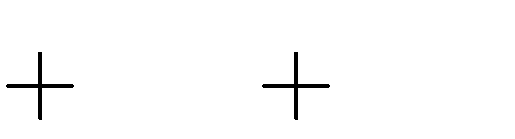
24*x*2

(nghìn đồng). Tính số sản phẩm mà công ty đó

**Bài 18.** Một cửa hàng bán được 3*x* (sản phẩm) thì có doanh thu là 6*x*2



40

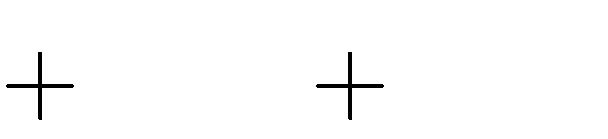


95*x* 200

đồng). Tính giá mỗi sản phẩm mà cửa hàng đã bán được theo *x* .

(nghìn

**Bài 19.** Một công ty sau khi tăng giá 40 nghìn đồng mỗi sản phẩm so với giá ban đầu là 3*x*



280*x* 1600

(nghìn đồng) thì có doanh thu 12*x*2

đó đã bán được theo *x*

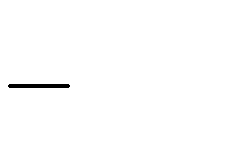
(nghìn đồng). Tính số sản phẩm mà công ty

**Bài 20.** Một cửa hàng sau khi giảm giá 3 nghìn đồng mỗi sản phẩm so với giá ban đầu là 5*x*

(nghìn đồng) thì có doanh thu 15*x*2

đã bán được theo *x*

# Dạng 1. Thực hiện tính Bài 1. Tính

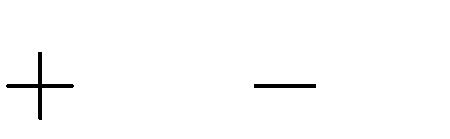


3*y*

a) 15 *y*2 :

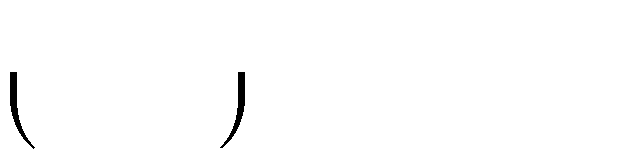
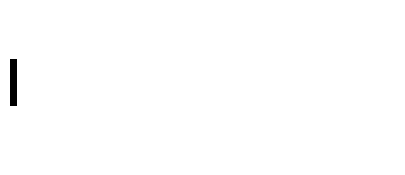
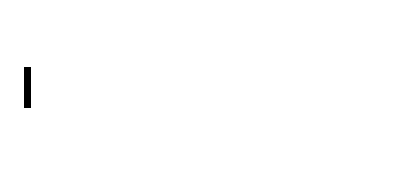
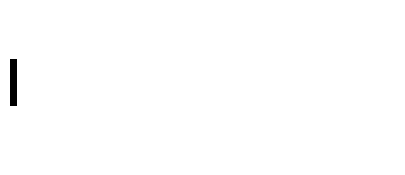
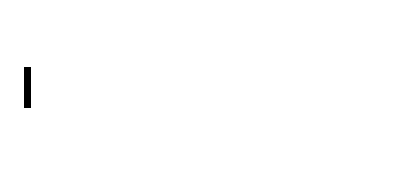
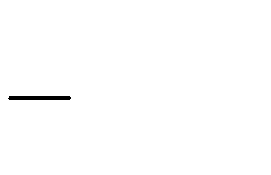
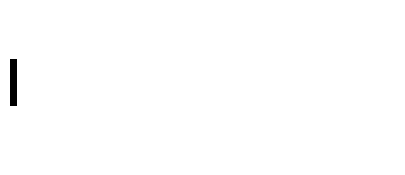
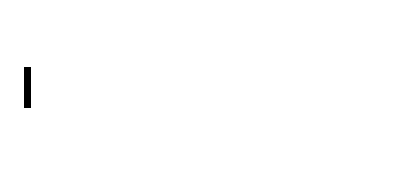
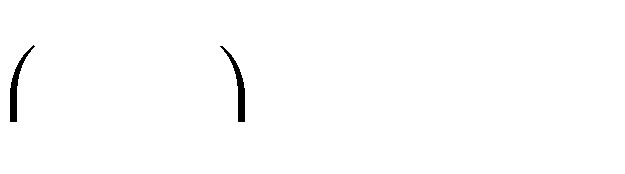
(nghìn đồng). Tính số sản phẩm mà cửa hàng đó

# BÀI TẬP TỰ LUYỆN



31*x* 24

b)



1

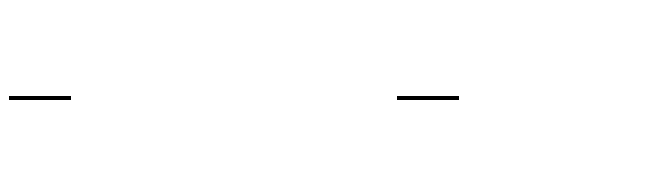
2

2

*x*5

: 4*x*4

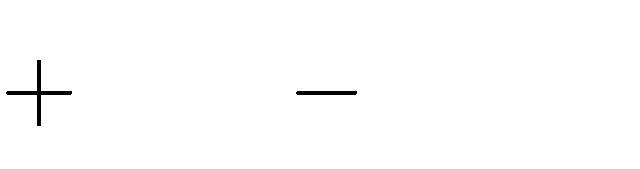
c)



15*z*4 : 3*z* 2

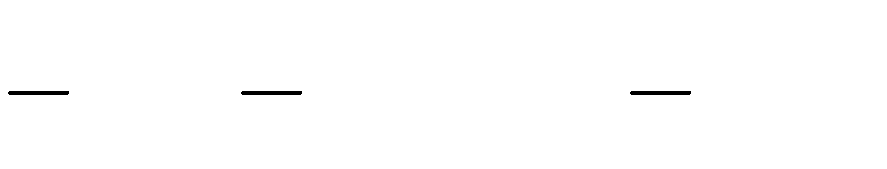
**Bài 2.** Làm các phép tính chia sau:

a) *x*4

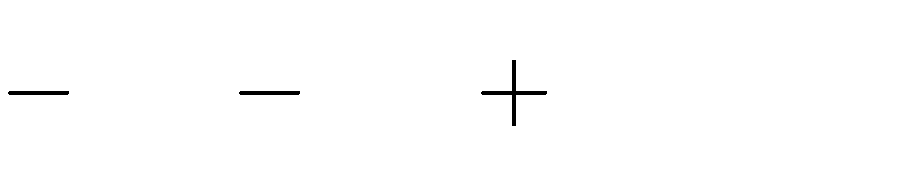


12*x*2 5*x* : *x*

b)

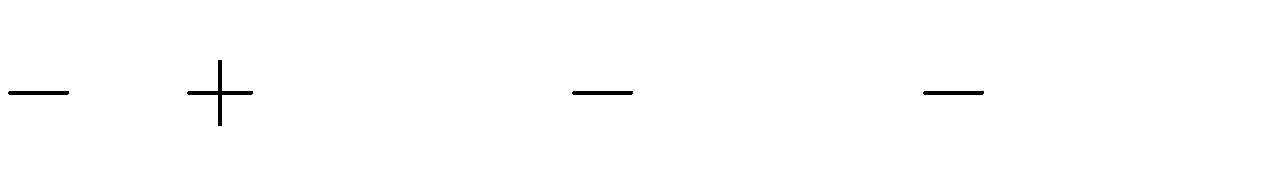


5*x*4 18*x*3 : 5*x*3



c) 2*x*5 4*x*3 3*x*2 : 2*x*2

d)



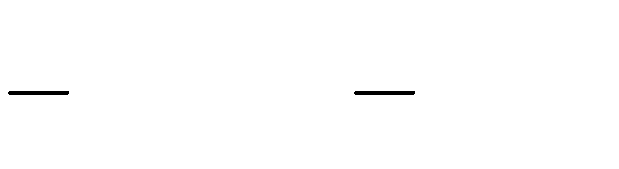
*x*6

0, 25*x*4

2*x*3 : 0, 5*x*2

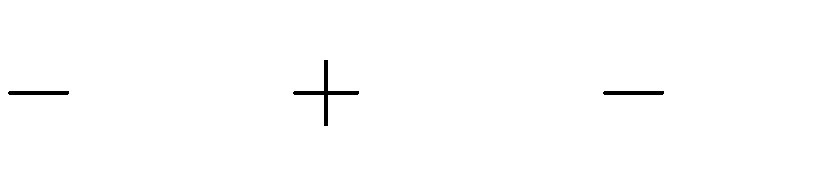
**Bài 3.** Thực hiện các phép chia:

1. 4*x*5



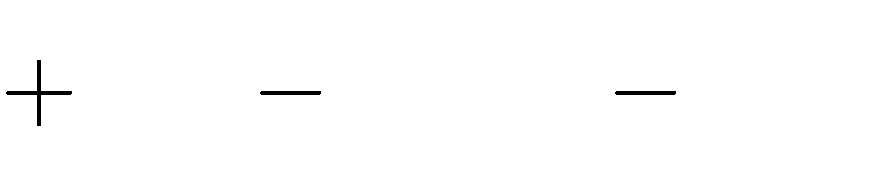
8*x*3 : 2*x*3

1. 9*x*3



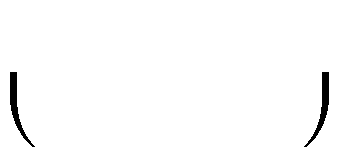
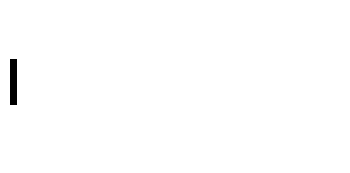
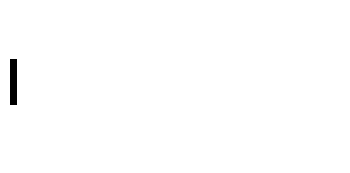
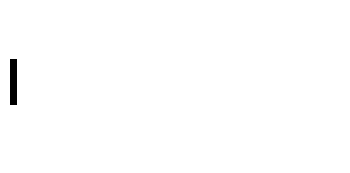
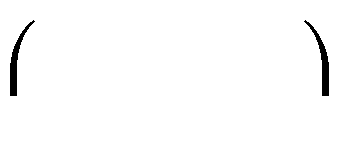
12*x*2 3*x* : 3*x*

1. *y*2



4 *y*3 3*y*4 : 2 *y*2

d)



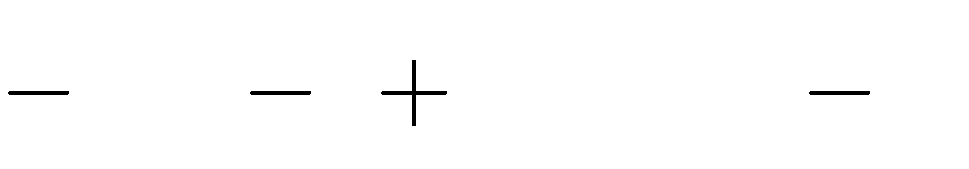
3*y*5 0, 25 *y*3 *y*2 :

1 *y*2

2

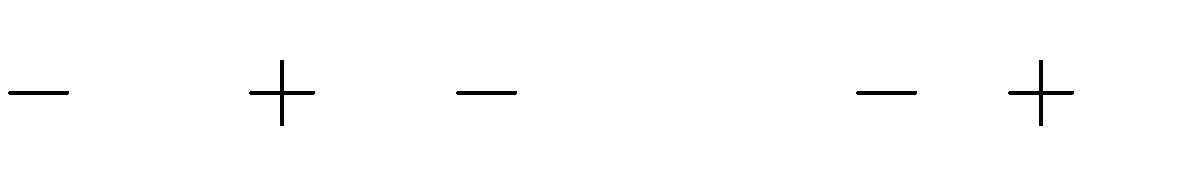
**Bài 4.** Thực hiện phép chia:

1. *x*4



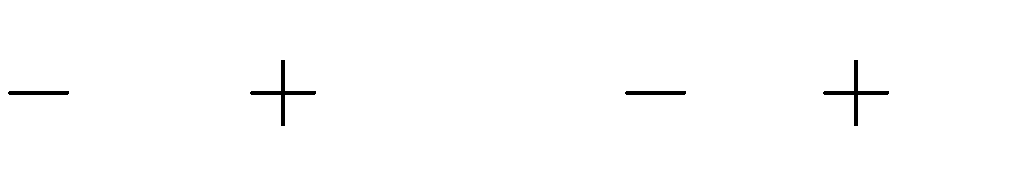
2*x*3 1 2*x* : *x*2 1

1. 6*x*3



5*x*2 4*x* 1 : 2*x*2 *x* 1

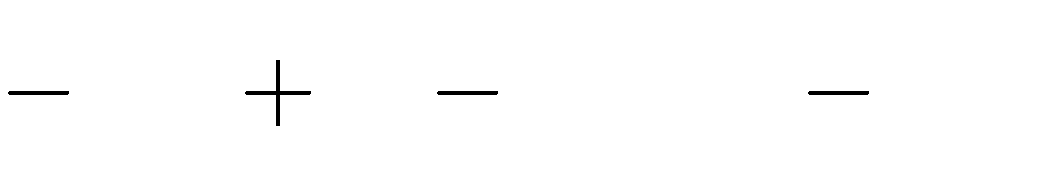
1. *x*4



5*x*2 4 : *x*2 3*x* 2

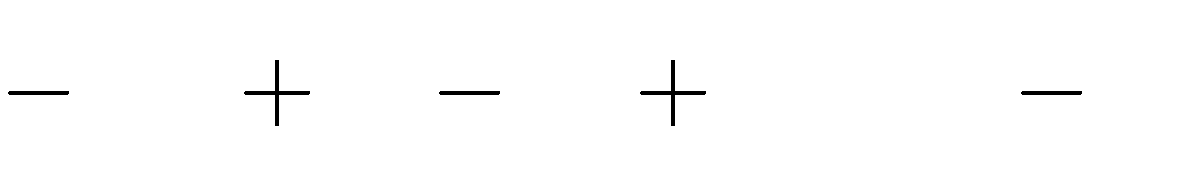
**Bài 5.** Sắp xếp đa thức theo lũy thừa giảm dần của biến rồi thực hiện phép chia

a) 5*x*2



3*x*3 15 9*x* : 5 3*x*

b)

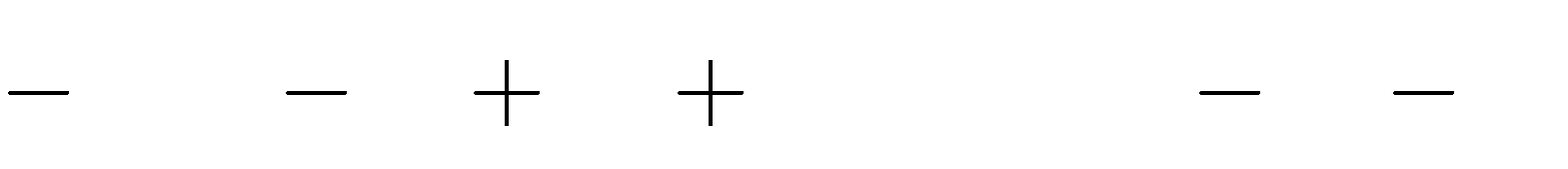


4*x*2

*x*3

20 5*x* : *x* 4

c) 2*x*4

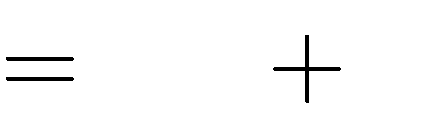


13*x*3 15 5*x* 21*x*2 : 4*x*

*x*2

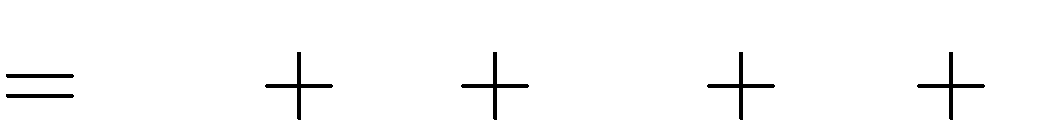
3

**Bài 6.** Tìm thương *Q* và dư *R* sao cho *A* biết



*B*.*Q R*

1. *A*

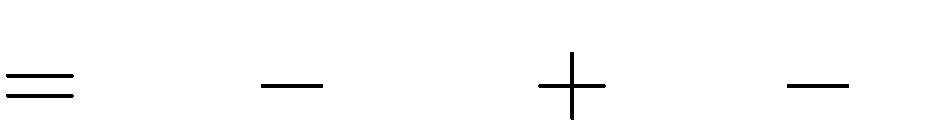


2*x*4

*x*3

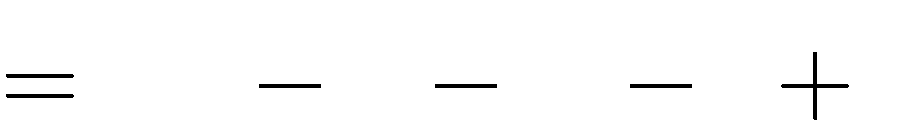
3*x*2 4*x* 9

1. *A*



2*x*3 11*x*2 19*x* 6

1. *A*



2*x* 4

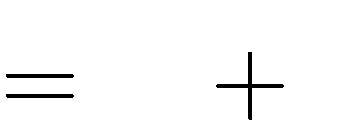
*x*3

*x*2

*x* 1

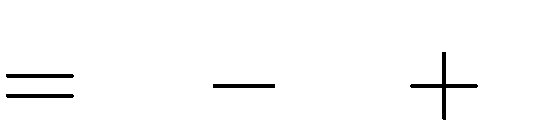
và *B*

và *B*



*x*2

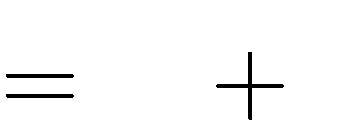
1



*x*2

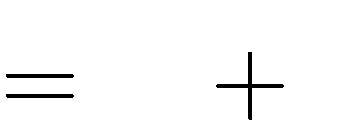
3*x* 1

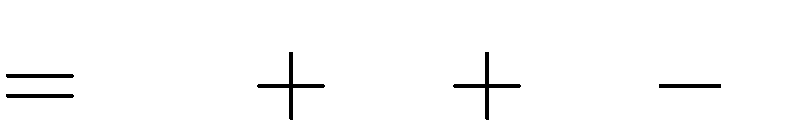
và *B*



*x*2

1

**Bài 7.** Cho hai đa thức *A* và *B x*2 1. Tìm dư *R* trong phép chia *A* cho *B*

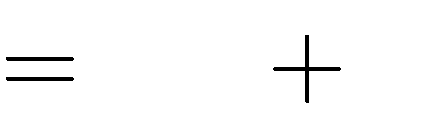


3*x*4

*x*3

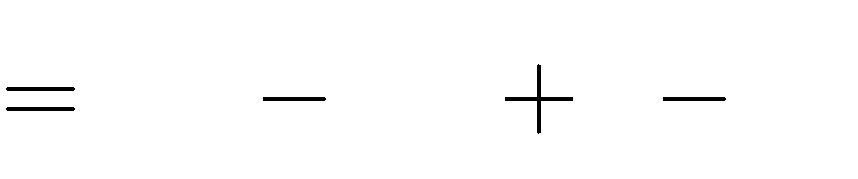
6*x* 5

rồi viết *A* dưới dạng *A*



*B*.*Q R*

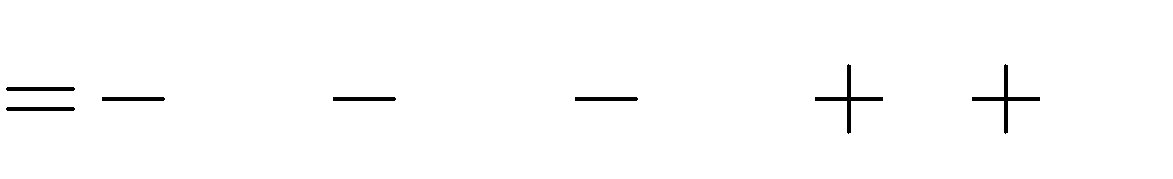
**Bài 8.** Cho các đa thức sau *A x B x*



6*x*4 4*x*3 *x*

1 ;

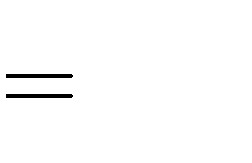
3

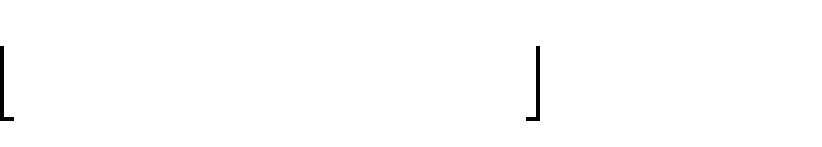
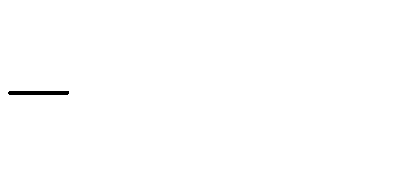
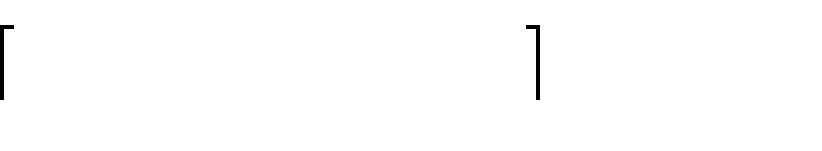


3*x*4 2*x*3 5*x*2 *x*

2 ;

3

*C x* 2*x*3 . Tính

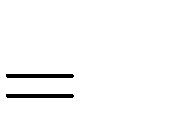


*A x B x* : *C x*

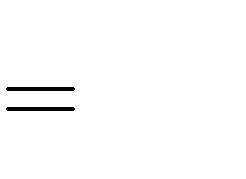
# Dạng 2. Tìm điều kiện của *n* để phép tính chia cho trước là phép chia hết

**Bài 1.** Không làm phép tính chia, hãy nhận xét đơn thức *A* có chia hết cho đơn thức *B* hay không?

1. *A* và *B*

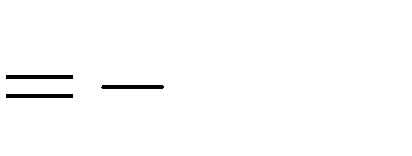


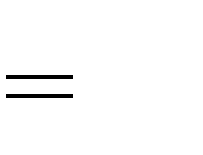
*x*3



1 *x*

2

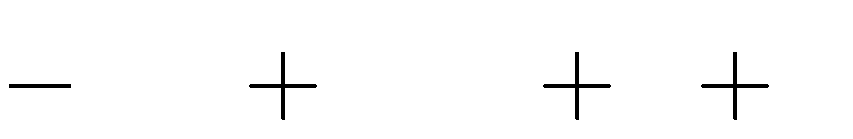
1. *A* 0, 5*y*3 và *B*



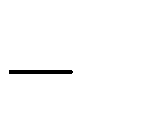
*y*6

**Bài 2.** Tìm *a* để

1. *x*4 chia hết cho *x*

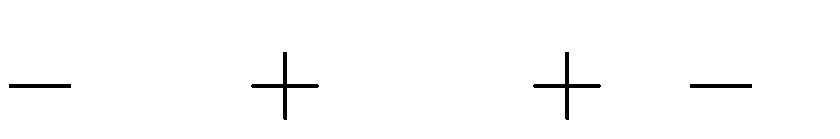


9*x*3 21*x*2 *x a*

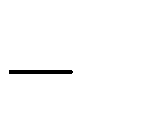


2

1. 3*x*4 chia hết cho *x*

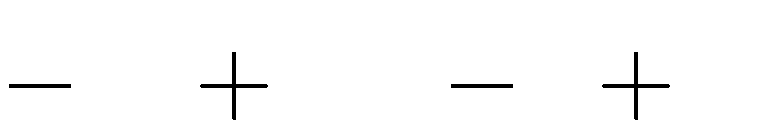


7*x*3 11*x*2 *x a*



4

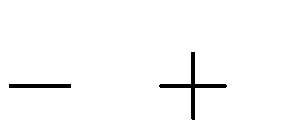
1. *x*4 chia hết cho *x*2



*x*3

6*x*2

*x a*



*x* 5

**Bài 3.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

1. *A*

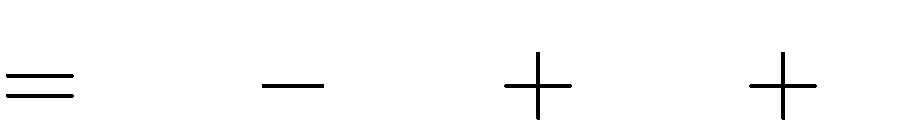


*x*4

3*x*3

3*x*2 *ax b*

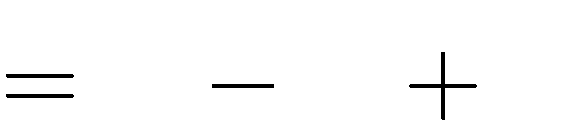
1. *A*



6*x*4 7*x*3 *ax*2 *b*

và *B*

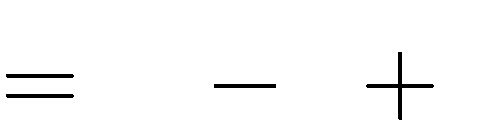
và *B*



*x*2

3*x*

4



*x*2

*x* 1

**Bài 4.** Tìm số tự nhiên *n* để

1. 15*xn* chia hết cho 3*x*3



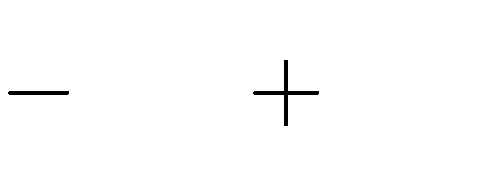
2

1. 2 *y*3 chia hết cho 5 *yn*



1

1. *x*3

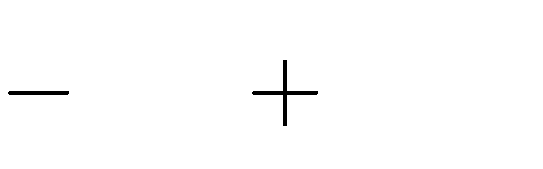


5*x*2 3*x*

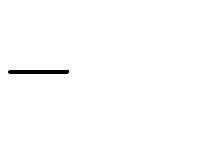
1. 2 *y*4

chia hết cho 4*xn*

chia hết cho 1 *y*



5 *y*3 6 *yn*



5

**Bài 4.** Tìm *a* và *b* để đa thức *A* chia hết cho đa thức *B* với:

1. *A*

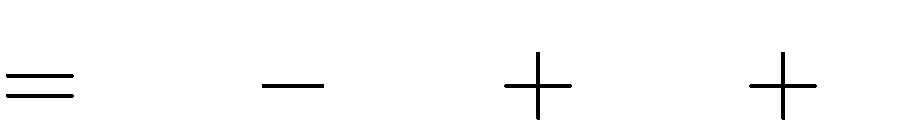


*x*4

3*x*3

3*x*2 *ax b*

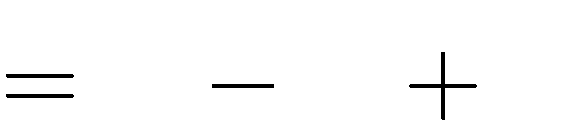
1. *A*



6*x*4 7*x*3 *ax*2 *b*

và *B*

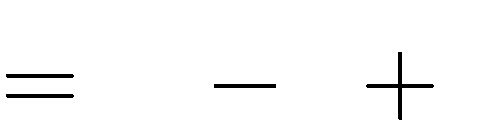
và *B*



*x*2

3*x*

4



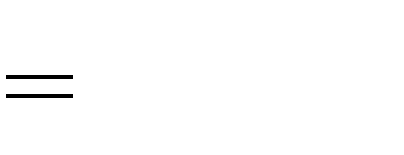
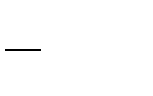
*x*2

*x* 1

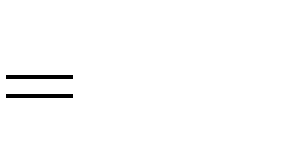
37

**Bài 5.** Tìm các giá trị nguyên của *n* để hai biểu thức *A* và biểu thức *B* đồng thời chia hết cho

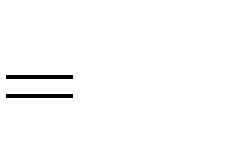
biểu thức *C* biết: *A B C*



18*y*12 3*n* ;



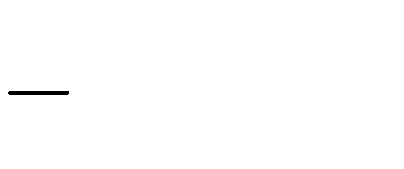
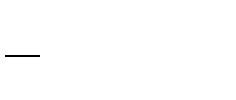
3*yn* ;



3*y*3

**Bài 6.** Tìm số tự nhiên *n* để mỗi phép chia sau là phép chia hết

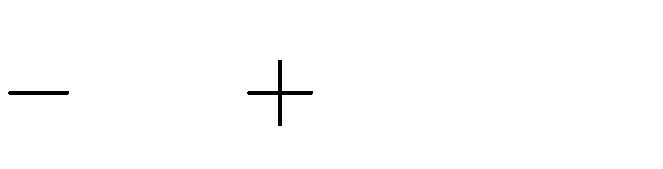
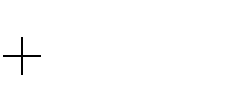
1. 4*xn* 2



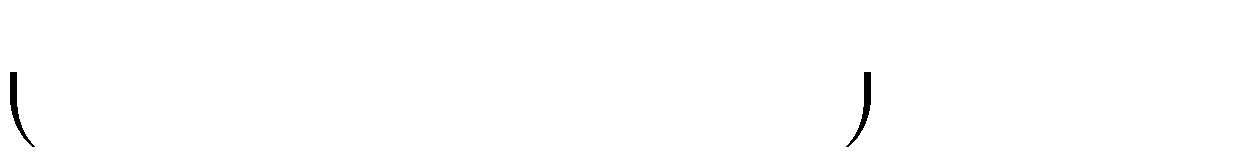
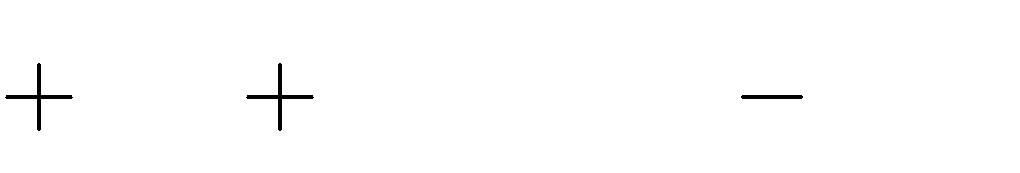
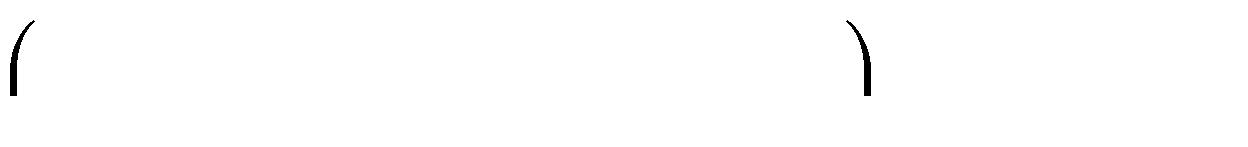
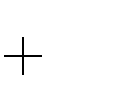
5*x*3

: 2*x*

1. 2*x*4



c)



1 *x*4

2

3*x*3

0, 25*x*2 :

*xn* 1

5*x*3

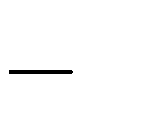
*xn* 2

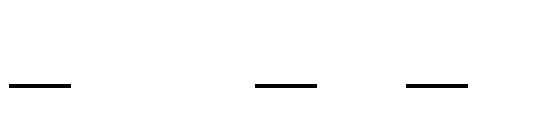
: 3*x*2

**Bài 7.** Tìm giá trị nguyên của *n* để biểu thức

4*n*3

chia hết cho biểu thức 2*n* 3 .

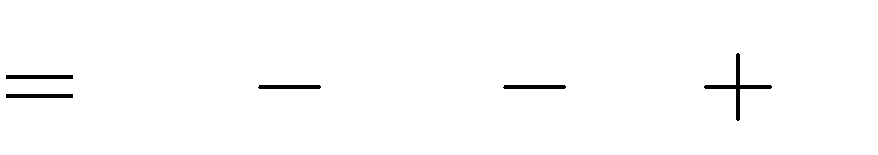
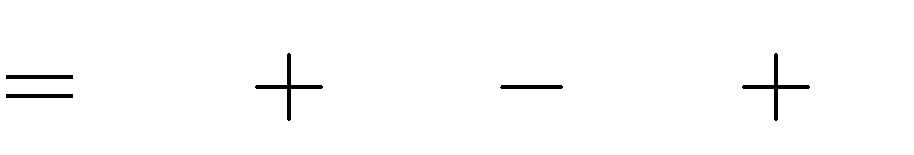
**Bài 8.** Tìm giá trị nguyên của *n* để giá trị của biểu thức *A* chia hết cho giá trị của biểu thức *B*



4*n*2 *n* 1

biết:

1. *A*



1. *A*

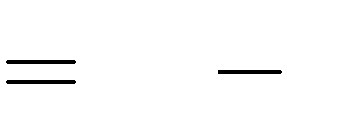
3*n*3 4*n*3

8*n*2 2*n*2

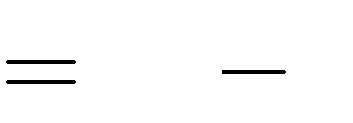
15*n* 6*n*

6; *B*

5; *B*

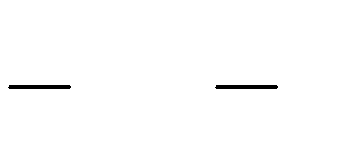


3*n* 1

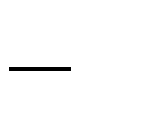


2*n* 1

**Dạng 3. Vận dụng phép chia đa thức một biến vào bài toán ứng dụng Bài 1.** Tính chiều dài của một hình chữ nhật có diện tích bằng 12 *y*2



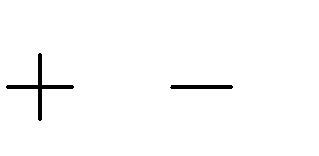
5 *y* 2



2

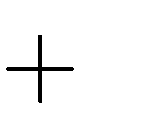
rộng 3*y* cm

**Bài 2.** Tính chiều rộng của một hình chữ nhật có diện tích bằng 15 *y*2



*y* 6

dài 3*y* cm



2

cm2

cm2

và chiều

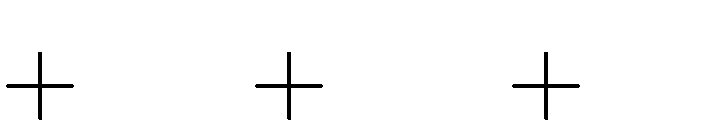
và chiều

**Bài 3.** Tính diện tích đáy của một hình hộp chữ nhật có chiều cao bằng *x* cm và có thể



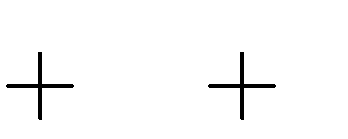
5

tích bằng *x*3 cm3 .

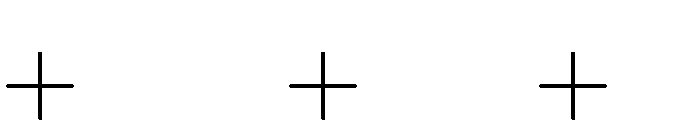


9*x*2 23*x* 15

**Bài 4.** Tính chiều cao của một hình hộp chữ nhật có diện tích đáy bằng *x*2



3*x* 1



11*x*2 17*x* 5

cm2

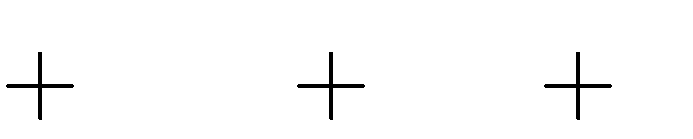
và có

thể tích bằng

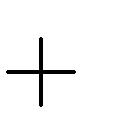
2*x*3

cm3

**Bài 5.** Một hình hộp chữ nhật có thể tích là *x*3



16*x*2 14*x* 8



1



2

cm3

. Biết đáy là hình chữ nhật

có các kích thước

*x* cm và

*x* cm . Tính chiều cao của hình hộp chữ nhật đó theo *x*

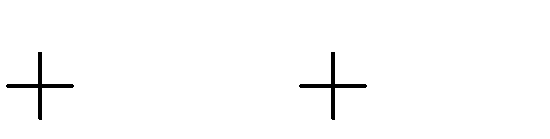
**Bài 6.** Một hình hộp chữ nhật có thể tích là

2*x*3

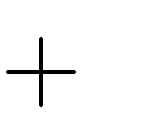
cm3

, chiều cao là 2*x* cm ;

chiều dài là *x* cm . Tính chiều rộng của hình hộp chữ nhật.



17*x*2 30*x*

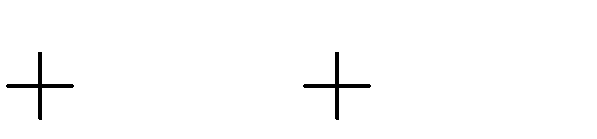


5



6

**Bài 7.** Một công ty sau khi tăng giá 20 nghìn đồng mỗi sản phẩm so với giá ban đầu là 2*x*



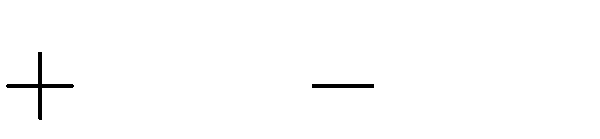
170*x* 1100

(nghìn đồng) thì có doanh thu đó đã bán được theo *x*

6*x*2

(nghìn đồng). Tính số sản phẩm mà công ty

**Bài 8.** Một công ty sau khi giảm giá 6 nghìn đồng mỗi sản phẩm so với giá ban đầu là 2*x*



510*x* 1692

(nghìn đồng) thì có doanh thu 18*x*2

đó đã bán được theo *x*

(nghìn đồng). Tính số sản phẩm mà công ty