

**EXERCICE 1**

Souligner le **facteur commun** dans chaque expression:

**A = 3x + 3y**

B = -3a + 3b

C = 7x + 12x

D = -6(3x - 2) - (3x - 2)(x - 4)

E = (x + 2)(x + 1) + (x + 2)(7x - 5)

F = (2x + 1)<sup>2</sup> + (2x + 1)(x + 3)

G = (x + 1)(2x - 3) + (x + 1)(5x + 1)

H = (3x - 4)(2 - x) - (3x - 4)<sup>2</sup>

I = (6x + 4)(2 + 3x) + (2 + 3x)(7 - x)

J = (3 + x)(5x + 2) + (x + 3)<sup>2</sup>

**EXERCICE 2**

Factoriser chaque expression en utilisant la règle

« ka + kb = k(a + b) » :

**A = 4x + 4y = 4(x + y)**

B = 6 × 9 + 6 × 3 =

C = 8a + 8b =

D = 5 × 3 + 3 × 14 =

E = 2 + 2x =

F = 7a + 7 =

G = 4x<sup>2</sup> + 4x =

H = 6y + 6y<sup>2</sup> =

I = 3x<sup>2</sup> + 5x =

J = 2ab + b<sup>2</sup> =

**EXERCICE 5**

Factoriser les expressions suivantes comme dans l'exemple :

<p><b>Z = 5(x + 1) + 3(x + 1)</b></p> <p><b>Z = (x + 1)(5 + 3)</b></p> <p><b>Z = 8(x + 1)</b></p>	<p>A = 13(x + 2) + 5(x + 2)</p>	<p>B = 7(2x - 3) + 2(2x - 3)</p>
<p>C = 3x(x + 2) - 5(x + 2)</p>	<p>D = 4(x + 3) + 9x(x + 3)</p>	<p>E = 7x(3x + 1) - 10x(3x + 1)</p>

**EXERCICE 3**

Compléter l'intérieur des parenthèses, comme dans l'exemple :

**A = 4a + 12 = 4 ( a + 3 )**

B = 2x + 6y = 2 ( )

C = 5x<sup>2</sup> - 30x = 5x ( )

D = 5(x - 1) + 3x(x - 1) = (x - 1) ( )

E = 15x - 20y = 5 ( )

F = -7xy + 14y = 7y ( )

G = a + 2ax = a ( )

H = 3x<sup>2</sup> + x = x ( )

I = 7x(x + 3) - 6(x + 3) = (x + 3) ( )

J = 4xy<sup>2</sup> + 12x<sup>2</sup>y = 4xy ( )

**EXERCICE 4**

Écrire le terme souligné sous forme d'un produit puis factoriser l'expression :

**A = 4a + 12 = 4a + 4 × 3 = 4(a + 3)**

B = 5x + 10 = =

C = 6x - 24 = =

D = 36 - 4x = =

E = 7x + 14 = =

F = 35 - 5x = =

G = 8x - 24 = =

H = 12x + 18 = =

I = 6 - 15x = =

J = 30x - 42 = =