EXERCICE 2A.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)² + (2x + 1)(x + 3)

G = (x + 1)(2x – 3) + (x + 1)(5x + 1)

H = (3x – 4)(2 – x) – (3x – 4)²

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

J = (3 + x)(5x + 2) + (x + 3)²

EXERCICE 2A.2

Factoriser chaque expression en utilisant la règle « ka + kb = k(a + b) » :

A =	**4x + 4y**	**=**	**4(x + y)**
B =	6 × 9 + 6 × 3	=	6 x (9 + 3)
C =	8a + 8b	=	8 x (a + b)
D =	5 × 3 + 3 × 14	=	3 x (5 + 14)
E =	2 + 2x	=	2 x (1 + x)
F =	7a + 7	=	7 x (a + 1)
G =	4x² + 4x	=	4x (x + 1)
H =	6y + 6y²	=	6y (1 + y)
I =	3x² + 5x	=	x (3x + 5)
J =	2ab + b²	=	b (2a + b)

EXERCICE 2A.3

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

A =	**4a + 12**	**=**	**4**	**(**	**a + 3**	**)**
B =	2x + 6y	=	2	(	x+3y	)
C =	5x² – 30x	=	5x	(	x-6	)
D =	5(x – 1) + 3x(x – 1)	=	(x – 1)	(	5 + 3x	)
E =	15x – 20y	=	5	(	3x - 4y	)
F =	-7xy + 14y	=	7y	(	-y + 2	)
G =	a + 2ax	=	a	(	1 + 2x	)
H =	3x² + x	=	x	(	3x + 1	)
I =	7x(x + 3) – 6(x + 3)	=	(x + 3)	(	7x-6)	)
J =	4xy² + 12x²y	=	4xy	(	y + 3x	)

EXERCICE 2A.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	=	5x + 5 x 2	=	5(x+2)
C =	6x – 24	=	6x -6 x 4	=	6(x-4)
D =	36 – 4x	=	4 x 9 -4x	=	4(9 - x)
E =	7x + 14	=	7x + 7 x 2	=	7(x+2)
F =	35 – 5x	=	5 x 7 - 5x	=	5(7 - x)
G =	8x – 24	=	8x - 8 x 4	=	8(x-4)
H =	12x + 18	=	3 x 4x + 3x6	=	3(4x+6)
I =	6 – 15x	=	3x2 - 3 x 5x	=	3(2-5x)
J =	30x – 42	=	6 x 5x - 6x7	=	6(5x - 7)

EXERCICE 2A.5

Factoriser les expressions suivantes comme dans l'exemple :

Z = 5(x + 1) + 3(x + 1) **Z = (x + 1)(5 + 3)** **Z = 8(x + 1)**	A = 13(x + 2) + 5(x + 2) = (x+2)(13 + 5) = 18(x+2)	B = 7(2x – 3) + 2(2x – 3) =(2x - 3)(7 + 2) = 9(2x - 3)
C = 3x(x + 2) – 5(x + 2) = (x+2)(3x-5)	D = 4(x + 3) + 9x(x + 3) =(x+3)(4+9x)	E = 7x(3x + 1) – 10x(3x + 1) =(3x+1) (7x - 10x) = -3x(3x+1)