

Entraînement 1 Réduis les expressions :

$$4 \times 3x = 12x$$

$$\triangleright 4x \times 5x = 20x^2$$

$$7 \times (-2x) = -14x$$

$$(-2x) \times 4x = -8x^2$$

$$x \times 3 = 3x$$

$$-10x + 4x = -6x$$

Entraînement 2 Développe les expressions et réduis :

$$E = (x + 3) \times (x + 2)$$

$$F = (x + 5) \times (2 + x)$$

$$E = x \times x + x \times 2 + 3 \times x + 3 \times 2$$

$$F = x \times 2 + x \times x + 5 \times 2 + 5 \times x$$

$$E = x^2 + 2x + 3x + 6$$

$$F = 2x + x^2 + 10 + 5x$$

$$E = x^2 + 5x + 6$$

$$F = x^2 + 7x + 10$$

$$G = (x + 7) \times (x + 2)$$

$$H = (x + 1) \times (x - 4)$$

$$G = x \times x + x \times 2 + 7 \times x + 7 \times 2$$

$$H = x \times x + x \times (-4) + 1 \times x + 1 \times (-4)$$

$$G = x^2 + 2x + 7x + 14$$

$$H = x^2 - 4x + 1x - 4$$

$$G = x^2 + 9x + 14$$

$$H = x^2 - 3x - 4$$

$$I = (x - 3) \times (x + 10)$$

$$J = (x - 2) \times (x - 3)$$

$$I = x \times x + x \times 10 - 3 \times x - 3 \times 10$$

$$J = x \times x + x \times (-3) - 2 \times x - 2 \times (-3)$$

$$I = x^2 + 10x - 3x - 30$$

$$J = x^2 - 3x - 2x + 6$$

$$I = x^2 + 7x - 30$$

$$J = x^2 - 5x + 6$$

Entraînement 3 Développe directement et réduis :

$$O = (2x + 4) \times (3x - 1)$$

$$P = (4x + 6) \times (x - 1)$$

$$O = 6x^2 - 2x + 12x - 4$$

$$P = 4x^2 - 4x + 6x - 6$$

$$O = 6x^2 + 10x - 4$$

$$P = 4x^2 + 2x - 6$$

$$Q = (5x - 3) \times (7x - 4)$$

$$R = (2x + 5) \times (2x + 5)$$

$$Q = 35x^2 - 20x - 21x + 12$$

$$R = 4x^2 + 10x + 10x + 25$$

$$Q = 35x^2 - 41x + 12$$

$$R = 4x^2 + 20x + 25$$

$$S = (10x - 3)(10x + 4)$$

$$T = (7x - 3)(7x + 3)$$

$$S = 100x^2 + 40x - 30x - 12$$

$$T = 49x^2 + 21x - 21x - 9$$

$$S = 100x^2 + 10x - 12$$

$$T = 49x^2 - 9$$

REDUCTION D'EXPRESSION

$$\triangleright 2 \times 4x = 8x$$

$$\triangleright 5x \times 4x = 20x^2$$

PRODUIT DE 2 SOMMES

$$(x + 3)(x + 6)$$

$$= x \times x + x \times 6 + 3 \times x + 3 \times 6$$

$$= x^2 + \frac{6x}{\downarrow} + \frac{3x}{\downarrow} + 18$$

$$= x^2 + \frac{9x}{\downarrow} + 18$$

Réponses en vrac :

$$x^2 - 3x - 4$$

$$x^2 + 5x + 6$$

$$x^2 - 5x + 6$$

$$x^2 + 7x - 30$$

$$x^2 + 9x + 14$$

$$x^2 + 7x + 10$$

DEVELOPPER DIRECTEMENT

$$(2x + 5)(3x - 4)$$

$$= 6x^2 - 8x + 15x - 20$$

$$= 6x^2 + 7x - 20$$

Réponses en vrac :

$$4x^2 + 10x + 25$$

$$49x^2 - 9$$

$$100x^2 + 10x - 12$$

$$35x^2 - 41x + 12$$

$$6x^2 + 10x - 4$$

$$4x^2 + 2x - 6$$

