

# Cinquièmes : Mathématiques.

Le compte est bon :

25      7      3      1      10      6

135

•  $25 \times 6 = 150$

•  $6 - 1 = 5$

•  $25 \times 7 = 175$

•  $150 - 10 = 140$

•  $5 \times 25 = 125$

•  $3 + 1 = 4$

•  $7 + 1 = 8$

•  $125 + 10 = 135$

•  $4 \times 10 = 40$

•  $140 - 8 = 132$

•  $175 - 40 = 135$

•  $132 + 3 = 135$

Simplifier les expressions suivantes :

$$B = - (x^2 - x) - (x - 1) - (1 - x^2)$$

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

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

$$= 0$$

$$C = x^2 - (3x^2 - 5x^2) + (x^2 - 8x^2) - 2x^2$$

$$= x^2 - 3x^2 + 5x^2 + x^2 - 8x^2 - 2x^2$$

$$= -6x^2$$



$$D = -4x + x^2 - (6 + 5x^2) + 3x - (10 - 8x^2) + 2x$$

$$D = -4x + x^2 - 6 - 5x^2 + 3x - 10 + 8x^2 + 2x$$

$$= x^2 - 5x^2 + 8x^2 - 4x + 3x + 2x - 6 - 10$$

$$= 4x^2 + x - 16$$

$$E = -(4 + 3x - 2x^2) - (4x - x^2) - (x^2 - x)$$

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

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

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

$$F = 2x^3 + 4 - (-6x^2 + x) - (-2x + 9x^3) - (3x^2 - 9x)$$

$$= 2x^3 + 4 + 6x^2 - x + 2x - 9x^3 - 3x^2 + 9x$$

$$= 2x^3 - 9x^3 + 6x^2 - 3x^2 - x + 2x + 9x + 4$$

$$= -7x^3 + 3x^2 + 10x + 4$$

$$G = \frac{1}{4}x^2 - \left(\frac{3}{2}x + \frac{1}{2}x^2\right) - \left(\frac{4}{5} - \frac{5}{4}x\right)$$

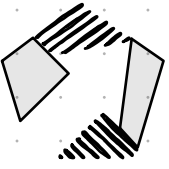
$$= \frac{1}{4}x^2 - \frac{3}{2}x - \frac{1}{2}x^2 - \frac{4}{5} + \frac{5}{4}x$$

$$= x^2 \left(\frac{1}{4} - \frac{1}{2}\right) + x \left(\frac{5}{4} - \frac{3}{2}\right) - \frac{4}{5}$$

$$= \left(\frac{1}{4} - \frac{1 \times 2}{2 \times 2}\right) x^2 + \left(\frac{5}{4} - \frac{3 \times 2}{2 \times 2}\right) x - \frac{4}{5}$$

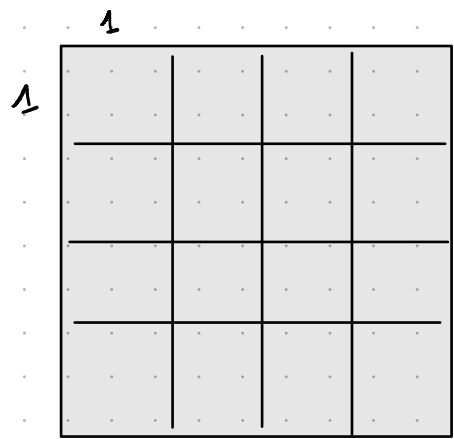
$$= \left(\frac{1}{4} - \frac{2}{4}\right) x^2 + \left(\frac{5}{4} - \frac{6}{4}\right) x - \frac{4}{5}$$

$a \times b = b \times a$



Plus de  
bonnes  
notes

$$= -\frac{1}{4}x^2 - \frac{1}{4}x - \frac{4}{5}$$



- 1.  $\longrightarrow$  16  $4^2$
- 2.  $\longrightarrow$  9  $+ 3^2$
- 3.  $\longrightarrow$  4  $+ 2^2$
- 4.  $\longrightarrow$  1  $+ 1$

Developpement :

Developper les expressions suivantes.

$$A = 8(3x+2) \quad B = 7x(2x+1) \quad C = x(2x+8)$$

$$A = 8 \times 3x + 8 \times 2 \quad B = 7x \times 2x + 7x \times 1 \quad C = 2x^2 + 8x$$

$$A = 18x + 16 \quad B = 14x^2 + 7x$$

Factorisation :

factoriser les expressions suivantes :

$$A = 8x + 4 \quad B = 9x - 21 \quad C = 12x + 16$$

$$A = 4 \times 2x + 4 \times 1$$

$$A = 4(2x + 1)$$