

Niveau 2Exercice 3 p16

$$\begin{aligned} P &= 3(4x+7) + 4(2x-5) \\ &= 3 \times 4x + 3 \times 7 + 4 \times 2x + 4 \times (-5) \\ &= 12x + 21 + 8x - 20 \\ &= 12x + 8x + 21 - 20 \\ &= \underline{20x + 1} \end{aligned}$$

$$\begin{aligned} N &= 7x(2x-5) - 2(2x-5) \\ &= 7x \times 2x + 7x \times (-5) + (-2) \times 2x + (-2) \times (-5) \\ &= 14x^2 - 35x - 4x + 10 \\ &= 14x^2 - 4x - 35x + 10 \\ &= \underline{14x^2 - 39x + 10} \end{aligned}$$

Exercice 4 p16

$$\begin{aligned} a) \quad AD &= AF - DF \\ AD &= \underline{6 - x} \end{aligned}$$

$$\underline{A_{ABCD}} = (6-x) \times 4 = 4 \times (6-x) = \underline{24 - 4x}$$

⑥

$$b) \quad \underline{A_{DEF}} = \frac{B \times h}{2} = \frac{4 \times x}{2} = \underline{2x}$$

c) cf question a)

d) cf question b)

e) $24 - 4x = 2x$

$$24 - 4x + 4x = 2x + 4x$$

$$24 = 6x$$

$$x = \frac{24}{6} = 4$$

on vérifie que

$$\left\{ \begin{array}{l} 24 - 4x = 24 - 4 \times 4 \\ \quad \quad \quad = 24 - 16 = 8 \\ 2x = 2 \times 4 = 8 \end{array} \right.$$

donc $x = 4$ est solution de l'équation

$$24 - 4x = 2x$$

f) les deux aires sont égales si $24 - 4x = 2x$

donc $x = 4$ cm est le valeur pour laquelle

$$A_{ABCD} = A_{DEF}$$