

FEUILLE DE RÉVISIONS N° 5

Chapitre n° 5 (p. 46 du TD)

Exercice 1

$$A = 8 + 3 \times 5 - 11$$

$$A = 8 + 15 - 11$$

$$A = 23 - 11$$

$$\mathbf{A = 12.}$$

$$B = 5 \times (12 - 4 \times 2) - 1$$

$$B = 5 \times (12 - 8) - 1$$

$$B = 5 \times 4 - 1$$

$$B = 20 - 1$$

$$\mathbf{B = 19.}$$

$$C = 8 + (9 + 3 \times 7) \div 3$$

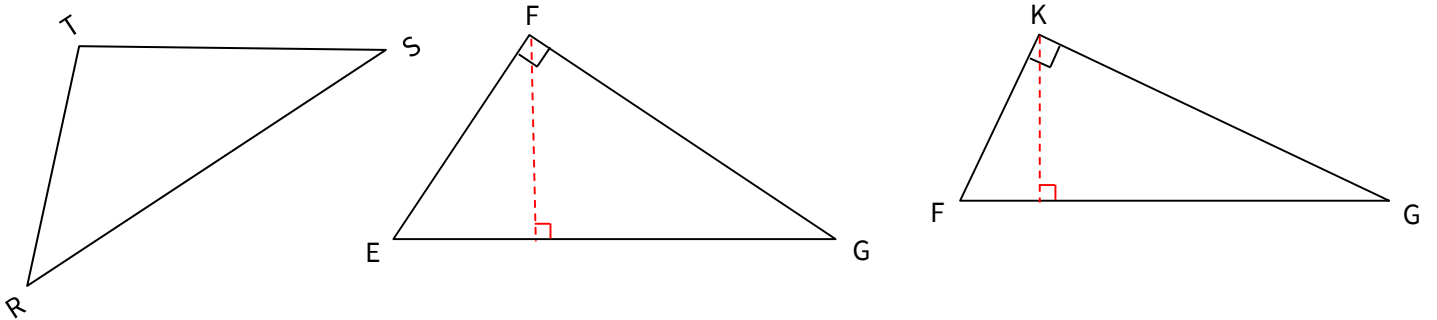
$$C = 8 + (9 + 21) \div 3$$

$$C = 8 + 30 \div 3$$

$$C = 8 + 10$$

$$\mathbf{C = 18.}$$

Exercice 2



1. (b) $\mathcal{P}_{RST} = 7 + 4 + 5 = 11 + 5$, donc $\mathcal{P}_{RST} = \mathbf{16 \text{ cm.}}$

Exercice 3

a) $\frac{4}{5}$ de 200 € = $\frac{4}{5} \times 200 = \frac{800}{5} = \mathbf{160 \text{ €.}}$

b) $\frac{1}{3}$ de 93 L = $\frac{1}{3} \times 93 = \frac{93}{3} = \mathbf{31 \text{ L.}}$

c) $\frac{8}{10}$ de 450 personnes = $\frac{8}{10} \times 450 = \frac{3600}{10} = \mathbf{360 \text{ personnes.}}$

Exercice 4

$$\frac{4}{10} = \frac{2 \times 2}{5 \times 2} = \frac{\mathbf{2}}{\mathbf{5}}$$

$$\frac{25}{15} = \frac{5 \times 5}{3 \times 5} = \frac{\mathbf{5}}{\mathbf{3}}$$

$$\frac{2}{14} = \frac{1 \times 2}{7 \times 2} = \frac{\mathbf{1}}{\mathbf{7}}$$

$$\frac{12}{14} = \frac{6 \times 2}{7 \times 2} = \frac{\mathbf{6}}{\mathbf{7}}$$

$$\frac{16}{12} = \frac{4 \times 4}{3 \times 4} = \frac{\mathbf{4}}{\mathbf{3}}$$

$$\frac{9}{3} = \frac{3 \times 3}{1 \times 3} = \frac{\mathbf{3}}{\mathbf{1}} = \mathbf{3}$$

$$\frac{35}{40} = \frac{7 \times 5}{8 \times 5} = \frac{\mathbf{7}}{\mathbf{8}}$$

Exercice 5

D : BAC est un triangle.

P : La somme des mesures des angles d'un triangle vaut 180° .

$$C : \widehat{ACB} = 180^\circ - (65^\circ + 20^\circ)$$

$$\widehat{ACB} = 180^\circ - 85^\circ$$

$$\widehat{ACB} = 95^\circ.$$

D : JAQ est un triangle.

P : La somme des mesures des angles d'un triangle vaut 180° .

$$C : \widehat{JQA} = 180^\circ - (30^\circ + 26^\circ)$$

$$\widehat{JQA} = 180^\circ - 56^\circ$$

$$\widehat{JQA} = 124^\circ.$$

D : CAQ est un triangle.

P : La somme des mesures des angles d'un triangle vaut 180° .

$$C : \widehat{CAQ} = 180^\circ - (130^\circ + 26^\circ)$$

$$\widehat{CAQ} = 180^\circ - 156^\circ$$

$$\widehat{CAQ} = 24^\circ.$$

Exercice 6

$$\frac{4}{7} = \frac{4 \times 5}{7 \times 5} = \frac{20}{35}$$

$$\frac{3}{5} = \frac{3 \times 7}{5 \times 7} = \frac{21}{35}$$

$$\frac{8}{3} = \frac{8 \times 6}{3 \times 6} = \frac{48}{18}$$

$$\frac{5}{6} = \frac{5 \times 3}{6 \times 3} = \frac{15}{18}$$

$$\frac{5}{9} = \frac{5 \times 1}{9 \times 1} = \frac{5}{9}$$

$$\frac{4}{1} = \frac{4 \times 9}{1 \times 9} = \frac{36}{9}$$

$$\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

$$\frac{4}{3} = \frac{4 \times 4}{3 \times 4} = \frac{16}{12}$$

Exercice 7

$$4 \rightarrow 4 \times 3 = 12 \rightarrow 12 + 5 = 17.$$

$$1,5 \rightarrow 1,5 \times 3 = 4,5 \rightarrow 4,5 + 5 = 9,5.$$

$$x \rightarrow x \times 3 = 3x \rightarrow 3x + 5 = 3x + 5.$$

Exercice 8

$$4 \rightarrow 4 + 3 = 7 \rightarrow 7 \times 5 = 35.$$

$$1,5 \rightarrow 1,5 + 3 = 4,5 \rightarrow 4,5 \times 5 = 22,5.$$

$$x \rightarrow x + 3 \rightarrow (x + 3) \times 5 = 5(x + 3).$$

Exercice 9

1. $3 \rightarrow 3^2 = 9 \rightarrow 9 \times 5 = 45 \rightarrow 45 - 4 = 41.$

2. $5 \rightarrow 5^2 = 25 \rightarrow 25 \times 5 = 125 \rightarrow 125 - 4 = 121.$

3. $x \rightarrow x^2 \rightarrow x^2 \times 5 = 5 \times x^2 = 5x^2 \rightarrow 5x^2 - 4.$

Exercice 10

1. La dépense de Grégoire est : $D = 12 + 0,80 \times 30 + 0,40 \times m = 12 + 24 + 0,4m = 36 + 0,4m \text{ €}.$

2. Si $m = 150$, alors $D = 36 + 0,4 \times 150 = 36 + 60 = 96 \text{ €}.$

3. $m = 150 \text{ min} = 2 \times 60 \text{ min} + 30 \text{ min} = 2 \text{ h} + 30 \text{ min} = 2,5 \text{ h}.$

Exercice 11

$$A = 7 \times 2 + 3 \times 3 - 3 = 14 + 3 \times 3 - 3 = 14 + 9 - 3 = 23 - 3 = 20.$$

$$B = 3 \times 5 - 7 \times 1 + 4 = 15 - 7 \times 1 + 4 = 15 - 7 + 4 = 8 + 4 = 12.$$

$$C = 2 \times 4 \times 7 - 6 = 8 \times 7 - 6 = 56 - 6 = 50.$$