

Exercice 1

Calculer

$$A = (\sqrt{7})^2 \qquad B = (3\sqrt{5})^2 \qquad C = (-2\sqrt{3})^2$$

$$D = 3\sqrt{2} \times 4\sqrt{5} \qquad E = -3\sqrt{7} \times 5\sqrt{7} \qquad F = 7\sqrt{6} \times 2\sqrt{3}$$

Exercice 2Calculer G pour $x = \sqrt{3}$ $G = -5x^2 + 4x + 10$ Exercice 3

Développer

$$H = 4\sqrt{7} - (6\sqrt{7} + 2) \qquad I = (\sqrt{3} + 2) - \sqrt{3}(2 - \sqrt{3})$$

Exercice 4Ecrire sous la forme $a + b\sqrt{c}$

$$J = (5 + \sqrt{7})^2 \qquad K = (\sqrt{7} - \sqrt{3})(\sqrt{7} + \sqrt{3}) \qquad L = (3 - 2\sqrt{5})^2$$

$$M = (\sqrt{5} - \sqrt{3})^2 \qquad N = (2\sqrt{5} - 3)(2\sqrt{5} + 3) \qquad O = (2\sqrt{3} - 4\sqrt{5})^2$$

Réponses

$$\text{I) } A = 7 \qquad B = 45 \qquad C = 12$$

$$D = 12\sqrt{10} \qquad E = -105 \qquad F = 14\sqrt{18} = 42\sqrt{2}$$

$$\text{II) } G = -5 + 4\sqrt{3}$$

$$\text{III) } H = -2 - 2\sqrt{7} \qquad I = 5 - \sqrt{3}$$

$$\text{IV) } J = 32 + 10\sqrt{7} \qquad K = 4 \qquad L = 29 - 12\sqrt{5} \qquad M = 8 - 2\sqrt{15}$$

$$N = 11 \qquad O = 92 - 16\sqrt{15}$$