

Exercice II :

indices : 1. priorités !

2. 300, 27 et 3 dans la table de ... ; IR ?

1. $A = \frac{3}{7} - \frac{15}{7} \div \frac{5}{24} = \frac{3}{7} - \frac{15}{7} \times \frac{24}{5} = \frac{3}{7} - \frac{15 \times 24}{5 \times 7} = \frac{3}{7} - \frac{5 \times 3 \times 24}{5 \times 7} = \frac{3}{7} - \frac{72}{7} = -\frac{69}{7}$ (fraction irréductible).
2. a) $B = \sqrt{300} - 4\sqrt{27} + 6\sqrt{3} = \sqrt{100 \times 3} - 4 \times \sqrt{9 \times 3} + 6\sqrt{3} = 10\sqrt{3} - 12\sqrt{3} + 6\sqrt{3} = 4\sqrt{3}$.
- b) $C = (5 + \sqrt{3})^2 = 5^2 + 2 \times 5 \times \sqrt{3} + \sqrt{3}^2 = 25 + 10\sqrt{3} + 3 = 28 + 10\sqrt{3}$.
- c) $D = (\sqrt{2} + \sqrt{5})(\sqrt{2} - \sqrt{5}) = \sqrt{2}^2 - \sqrt{5}^2 = 2 - 5 = -3$ (entier relatif).