

Exercice : calculer avec des fractions

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Calculer et mettre le résultat sous forme irréductible :

$$\bullet A = \frac{4}{5} + \frac{2}{5} \div \frac{2}{3}$$

$$\bullet B = \frac{4}{3} - \frac{2}{3} \times \frac{2}{5}$$

$$\bullet C = \frac{1 - \frac{2}{3}}{\frac{3}{4} + 2}$$

$$\bullet D = \frac{5}{3} \div \left(\frac{2}{9} + 1 \right)$$

Correction de l'exercice

$$A = \frac{4}{5} + \frac{2}{5} \div \frac{2}{3} = \frac{4}{5} + \frac{2}{5} \times \frac{3}{2} = \frac{4}{5} + \frac{2 \times 3}{5 \times 2} = \frac{4}{5} + \frac{3}{5} = \frac{7}{5}$$

$$B = \frac{4}{3} - \frac{2}{3} \times \frac{2}{5} = \frac{4}{3} - \frac{2 \times 2}{3 \times 5} = \frac{4}{3} - \frac{2 \times 3 \times 2}{3 \times 5} = \frac{4}{3} - \frac{4}{5} = \frac{4 \times 5}{3 \times 5} - \frac{4 \times 3}{5 \times 3} = \frac{20}{15} - \frac{12}{15} = \frac{8}{15}$$

$$C = \frac{1 - \frac{2}{3}}{\frac{3}{4} + 2} = \frac{\frac{3}{3} - \frac{2}{3}}{\frac{3}{4} + \frac{2 \times 4}{1 \times 4}} = \frac{\frac{1}{3}}{\frac{3}{4} + \frac{8}{4}} = \frac{\frac{1}{3}}{\frac{11}{4}} = \frac{1}{3} \div \frac{11}{4} = \frac{1}{3} \times \frac{4}{11} = \frac{1 \times 4}{3 \times 11} = \frac{4}{33}$$

$$D = \frac{5}{3} \div \left(\frac{2}{9} + 1 \right) = \frac{5}{3} \div \left(\frac{2}{9} + \frac{9}{9} \right) = \frac{5}{3} \div \frac{11}{9} = \frac{5}{3} \times \frac{9}{11} = \frac{5 \times 9}{3 \times 11} = \frac{5 \times 3 \times 3}{3 \times 11} = \frac{15}{11}$$