

Calculs de fractions (Rappels)

Propriétés additions et soustractions :

$$\frac{a}{b} + \frac{c}{b} = \frac{a+c}{b} \qquad \frac{a}{b} - \frac{c}{b} = \frac{a-c}{b}$$

Propriétés multiplications et divisions :

$$\frac{a}{b} \times \frac{c}{d} = \frac{a \times c}{b \times d} \qquad \frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \times \frac{d}{c}$$

Méthode 1 : Calculer et donner le résultat sous forme simplifiée.

$$A = \frac{7}{9} - \frac{-5}{9} \times \frac{2}{3}$$

$$B = \frac{-2}{3 + \frac{7}{3}}$$

$$C = \left(\frac{-1}{3} + \frac{2}{9} \right) : \left(\frac{4}{3} + \frac{2}{-15} \right)$$

Correction :

$$A = \frac{7}{9} - \frac{-5}{9} \times \frac{2}{3}$$

$$B = \frac{-2}{3 + \frac{7}{3}}$$

$$C = \left(\frac{-1}{3} + \frac{2}{9} \right) : \left(\frac{4}{3} + \frac{2}{-15} \right)$$

$$A = \frac{7}{9} - \frac{-10}{27}$$

$$B = -2 \div \left(3 + \frac{7}{3} \right)$$

$$C = \left(\frac{-3}{9} + \frac{2}{9} \right) : \left(\frac{4}{3} - \frac{2}{15} \right)$$

$$A = \frac{7}{9} + \frac{10}{27}$$

$$B = -2 \div \left(\frac{9}{3} + \frac{7}{3} \right)$$

$$C = -\frac{1}{9} : \left(\frac{20}{15} - \frac{2}{15} \right)$$

$$A = \frac{21}{27} + \frac{10}{27}$$

$$B = -2 \div \frac{16}{3}$$

$$C = -\frac{1}{9} : \frac{18}{15}$$

$$A = \frac{31}{27}$$

$$B = -2 \times \frac{3}{16}$$

$$C = -\frac{1}{9} \times \frac{15}{18}$$

$$B = -\frac{2 \times 3}{2 \times 8}$$

$$C = -\frac{1 \times 5 \times 3}{3 \times 3 \times 18}$$

$$B = -\frac{3}{8}$$

$$C = -\frac{5}{54}$$

Fiche d'exercices n°1 (Fractions)

Exercice 1 : Calculer les expressions suivantes.

$$A = \frac{7}{3} - \frac{5}{3} \times \frac{2}{3}$$

$$B = \frac{3}{2} \times 5 - \frac{6}{7}$$

$$C = \frac{4}{3} \times \frac{1}{5} - \frac{3}{1 - \frac{2}{7}}$$

$$D = \left(\frac{1}{2} - \frac{1}{3} \right) : \frac{2}{3} + 1$$

Correction :

$$A = \frac{7}{3} - \frac{5}{3} \times \frac{2}{3} = \frac{21}{9} - \frac{10}{9} = \frac{11}{9}$$

$$B = \frac{3}{2} \times 5 - \frac{6}{7} = \frac{15}{2} - \frac{6}{7} = \frac{15 \times 7 - 6 \times 2}{2 \times 7} = \frac{105 - 12}{14} = \frac{93}{14}$$

$$C = \frac{4}{3} \times \frac{1}{5} - \frac{3}{1 - \frac{2}{7}} = \frac{4}{15} - \frac{3}{\frac{5}{7}} = \frac{4}{15} - \frac{21}{5} = \frac{4 - 21 \times 3}{15} = -\frac{59}{15}$$

$$D = \left(\frac{1}{2} - \frac{1}{3} \right) : \frac{2}{3} + 1 = \frac{1}{6} \times \frac{3}{2} + 1 = \frac{1}{4} + 1 = \frac{5}{4}$$