

Corrigé de l'exercice 1

Compléter :

▶1. $\frac{7_{(\times 8)}}{4_{(\times 8)}} = \frac{56}{32}$

▶2. $\frac{5_{(\times 8)}}{2_{(\times 8)}} = \frac{40}{16}$

▶3. $\frac{18}{12} = \frac{9_{(\times 2)}}{6_{(\times 2)}}$

▶4. $\frac{36}{12} = \frac{9_{(\times 4)}}{3_{(\times 4)}}$

▶5. $\frac{9_{(\times 9)}}{8_{(\times 9)}} = \frac{81}{72}$

▶6. $\frac{3_{(\times 3)}}{4_{(\times 3)}} = \frac{9}{12}$

▶7. $\frac{6_{(\times 3)}}{8_{(\times 3)}} = \frac{18}{24}$

▶8. $\frac{6_{(\times 6)}}{2_{(\times 6)}} = \frac{36}{12}$

Corrigé de l'exercice 2

Calculer en détaillant les étapes. Donner le résultat sous la forme d'une fraction la plus simple possible (ou d'un entier lorsque c'est possible).

▶1. $A = \frac{1}{80} \times \frac{24}{5}$

$$A = \frac{\cancel{8} \times 3}{\cancel{8} \times 10 \times 5}$$

$$A = \frac{3}{50}$$

▶2. $B = \frac{72}{25} \times \frac{35}{32}$

$$B = \frac{\cancel{8} \times 9 \times \cancel{5} \times 7}{\cancel{5} \times 5 \times \cancel{8} \times 4}$$

$$B = \frac{63}{20}$$

▶3. $C = \frac{72}{49} \times \frac{14}{45}$

$$C = \frac{\cancel{7} \times 8 \times \cancel{7} \times 2}{\cancel{7} \times 7 \times \cancel{9} \times 5}$$

$$C = \frac{16}{35}$$

▶4. $D = \frac{36}{35} \times \frac{5}{63}$

$$D = \frac{\cancel{9} \times 4 \times \cancel{5}}{\cancel{5} \times 7 \times \cancel{9} \times 7}$$

$$D = \frac{4}{49}$$

Corrigé de l'exercice 3

Calculer en détaillant les étapes. Donner le résultat sous la forme d'une fraction la plus simple possible (ou d'un entier lorsque c'est possible).

▶1. $A = \frac{9}{7} - 1$

$$A = \frac{9}{7} - \frac{1 \times 7}{1 \times 7}$$

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

$$A = \frac{2}{7}$$

▶2. $B = \frac{10}{12} + \frac{4}{2}$

$$B = \frac{10}{12} + \frac{4 \times 6}{2 \times 6}$$

$$B = \frac{10}{12} + \frac{24}{12}$$

$$B = \frac{34}{12}$$

$$B = \frac{17 \times \cancel{2}}{6 \times \cancel{2}}$$

$$B = \frac{17}{6}$$

▶3. $C = \frac{7}{5} - \frac{5}{15}$

$$C = \frac{7 \times 3}{5 \times 3} - \frac{5}{15}$$

$$C = \frac{21}{15} - \frac{5}{15}$$

$$C = \frac{16}{15}$$

▶4. $D = 6 - \frac{1}{5}$

$$D = \frac{6 \times 5}{1 \times 5} - \frac{1}{5}$$

$$D = \frac{30}{5} - \frac{1}{5}$$

$$D = \frac{29}{5}$$

▶5. $E = \frac{6}{15} + \frac{2}{5}$

$$E = \frac{6}{15} + \frac{2 \times 3}{5 \times 3}$$

$$E = \frac{6}{15} + \frac{6}{15}$$

$$E = \frac{12}{15}$$

$$E = \frac{4 \times \cancel{3}}{5 \times \cancel{3}}$$

$$E = \frac{4}{5}$$

▶6. $F = \frac{9}{5} + 7$

$$F = \frac{9}{5} + \frac{7 \times 5}{1 \times 5}$$

$$F = \frac{9}{5} + \frac{35}{5}$$

$$F = \frac{44}{5}$$

▶7. $G = \frac{8}{8} - 1$

$$G = \frac{8}{8} - \frac{1 \times 8}{1 \times 8}$$

$$G = \frac{8}{8} - \frac{8}{8}$$

$$G = 0$$

▶8. $H = \frac{4}{8} + \frac{9}{8}$

$$H = \frac{13}{8}$$

Corrigé de l'exercice 4

Calculer les expressions suivantes et donner le résultat sous la forme d'une fraction irréductible.

$$A = \frac{\frac{3}{2} - 1}{\frac{-2}{9} - 7}$$

$$A = \frac{\frac{3}{2} - \frac{1 \times 2}{1 \times 2}}{\frac{-2}{9} - \frac{7 \times 9}{1 \times 9}}$$

$$A = \frac{\frac{3}{2} - \frac{2}{2}}{\frac{-2}{9} - \frac{63}{9}}$$

$$A = \frac{1}{2} \div \frac{-65}{9}$$

$$A = \frac{1}{2} \times \frac{-9}{65}$$

$$A = \frac{1}{-2 \times \cancel{1}} \times \frac{9 \times \cancel{1}}{65}$$

$$\boxed{A = \frac{-9}{130}}$$

$$B = 1 - \frac{7}{18} \times -1$$

$$B = 1 - \frac{7}{-18 \times \cancel{1}} \times \frac{1 \times \cancel{1}}{1}$$

$$B = 1 - \frac{-7}{18}$$

$$B = \frac{1 \times 18}{1 \times 18} - \frac{-7}{18}$$

$$B = \frac{18}{18} - \frac{-7}{18}$$

$$\boxed{B = \frac{25}{18}}$$

$$C = \frac{-10}{7} \times \left(\frac{-5}{4} + \frac{5}{9} \right)$$

$$C = \frac{-10}{7} \times \left(\frac{-5 \times 9}{4 \times 9} + \frac{5 \times 4}{9 \times 4} \right)$$

$$C = \frac{-10}{7} \times \left(\frac{-45}{36} + \frac{20}{36} \right)$$

$$C = \frac{-10}{7} \times \frac{-25}{36}$$

$$C = \frac{-5 \times \cancel{2}}{-7 \times \cancel{1}} \times \frac{25 \times \cancel{1}}{18 \times \cancel{2}}$$

$$\boxed{C = \frac{125}{126}}$$