## Exercice 1

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

$$A = \frac{-2}{3} \times \left( \frac{-5}{13} + \frac{7}{10} \right)$$

$$B = \frac{\dfrac{4}{9} + 10}{\dfrac{-4}{5} + 5}$$

$$C = \frac{11}{4} - \frac{55}{64} \div \frac{-55}{72}$$

## Corrigé

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

$$A = \frac{-2}{3} \times \left( \frac{-5}{13} + \frac{7}{10} \right)$$

$$A = \frac{-2}{3} \times \left( \frac{-5_{\times 10}}{13_{\times 10}} + \frac{7_{\times 13}}{10_{\times 13}} \right)$$

$$A = \frac{-2}{3} \times \left( \frac{-50}{130} + \frac{91}{130} \right)$$

$$A = \frac{-2}{3} \times \frac{41}{130}$$

$$A = \frac{-1 \times \cancel{2}}{3} \times \frac{41}{65 \times \cancel{2}}$$

$$\boxed{A = \frac{-41}{195}}$$

$$B = \frac{\dfrac{4}{9} + 10}{\dfrac{-4}{5} + 5}$$

$$B = \frac{\dfrac{4}{9} + \dfrac{10_{\times 9}}{1_{\times 9}}}{\dfrac{-4}{5} + \dfrac{5_{\times 5}}{1_{\times 5}}}$$

$$B = \frac{\dfrac{4}{9} + \dfrac{90}{9}}{\dfrac{-4}{5} + \dfrac{25}{5}}$$

$$B = \frac{94}{9} \div \frac{21}{5}$$

$$B = \frac{94}{9} \times \frac{5}{21}$$

$$B =$$

$$\boxed{B = \frac{470}{189}}$$

$$C = \frac{11}{4} - \frac{55}{64} \div \frac{-55}{72}$$

$$C = \frac{11}{4} - \frac{55}{64} \times \frac{-72}{55}$$

$$C = \frac{11}{4} - \frac{1 \times \cancel{55}}{-8 \times \cancel{8}} \times \frac{9 \times \cancel{8}}{1 \times \cancel{55}}$$

$$C = \frac{11}{4} - \frac{-9}{8}$$

$$C = \frac{11_{\times 2}}{4_{\times 2}} - \frac{-9}{8}$$

$$C = \frac{22}{8} - \frac{-9}{8}$$

$$\boxed{C = \frac{31}{8}}$$