

ÉNONCÉ**Exercice 1**Calculer les expressions : 1) $A = 25 - 32 + 8$ 2) $B = (-25) \times (-6) \times 7 \times (-2)$ 3) $C = 15 - 12 \div 3 - 2$ **Exercice 2**

Écrire les nombres suivants sous la forme d'une fraction simplifiée :

1) $D = \frac{250}{150}$

2) $E = \frac{28}{-42}$

3) $F = 1,75$

Exercice 3

Calculer les expressions suivantes et donner le résultat sous la forme d'une fraction simplifiée :

1) $G = \frac{9}{7} - \frac{2}{7}$

2) $H = \frac{1}{11} - \frac{13}{22}$

3) $I = -\frac{7}{6} + \frac{10}{4}$

4) $J = 2 + \frac{1}{4} + \frac{1}{8}$

5) $K = \frac{-5}{12} \times \frac{18}{-25}$

6) $L = 9 \times \frac{4}{63} \times \frac{7}{16}$

7) $M = \frac{56}{21} \div \frac{16}{3}$

8) $N = \frac{170}{\frac{140}{3}}$

Bonus Track : écrire le nombre $Z = 2,25 + \frac{1 - \frac{5}{1 + \frac{1}{4}}}{4 + \frac{1,5}{1 - \frac{1}{4}}}$ sous la forme d'une fraction simplifiée.

Corrigé**Exercice 1**

1) $A = 25 - 32 + 8$

$A = 25 + 8 - 32$

$A = 33 - 32$

$A = 1$

2) $B = (-25) \times (-6) \times 7 \times (-2)$

$B = -25 \times 6 \times 7 \times 2$

$B = -25 \times 2 \times 3 \times 7 \times 2$

$B = -25 \times 2 \times 2 \times 3 \times 7$

$B = -25 \times 4 \times 21$

$B = -100 \times 21$

$B = -2\,100$

3) $C = 15 - 12 \div 3 - 2$

$C = 15 - 4 - 2$

$C = 15 - 6$

$C = 9$

Exercice 2

1) $D = \frac{250}{150}$

$D = \frac{5 \times 5 \times 10}{3 \times 5 \times 10}$

$D = \frac{5}{3}$

2) $E = \frac{28}{-42}$

$E = -\frac{28}{42}$

$E = -\frac{4 \times 7}{6 \times 7}$

$E = -\frac{4}{6}$

$E = -\frac{2 \times 2}{2 \times 3}$

$E = -\frac{2}{3}$

3) $F = 1,75$

$F = \frac{175}{100}$

$F = \frac{7 \times 25}{4 \times 25}$

$F = \frac{7}{4}$

Exercise 3

$$1) G = \frac{9}{7} - \frac{2}{7}$$

$$G = \frac{9-2}{7}$$

$$G = \frac{7}{7}$$

$$\boxed{G=1}$$

$$2) H = \frac{1}{11} - \frac{13}{22}$$

$$H = \frac{1 \times 2}{11 \times 2} - \frac{13}{22}$$

$$H = \frac{2}{22} - \frac{13}{22}$$

$$H = \frac{2-13}{22}$$

$$H = \frac{-11}{22}$$

$$H = -\frac{1 \times 11}{2 \times 11}$$

$$\boxed{H = -\frac{1}{2}}$$

$$3) I = -\frac{7}{6} + \frac{10}{4}$$

$$I = -\frac{7}{6} + \frac{2 \times 5}{2 \times 2}$$

$$I = -\frac{7}{6} + \frac{5}{2}$$

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

$$I = \frac{-7+15}{6}$$

$$I = \frac{8}{6}$$

$$I = \frac{2 \times 4}{2 \times 3}$$

$$\boxed{I = \frac{4}{3}}$$

$$4) J = 2 + \frac{1}{4} + \frac{1}{8}$$

$$J = \frac{2}{1} + \frac{1}{4} + \frac{1}{8}$$

$$J = \frac{2 \times 8}{1 \times 8} + \frac{1 \times 2}{4 \times 2} + \frac{1}{8}$$

$$J = \frac{16+2+1}{8}$$

$$\boxed{J = \frac{19}{8}}$$

$$5) K = \frac{-5}{12} \times \frac{18}{-25}$$

$$K = + \frac{5}{12} \times \frac{18}{25}$$

$$K = \frac{5 \times 18}{12 \times 25}$$

$$K = \frac{5 \times 3 \times 6}{2 \times 6 \times 5 \times 5}$$

$$\boxed{K = \frac{3}{10}}$$

$$6) L = 9 \times \frac{4}{63} \times \frac{7}{16}$$

$$L = \frac{9}{1} \times \frac{4}{63} \times \frac{7}{16}$$

$$L = \frac{9 \times 4 \times 7}{1 \times 63 \times 16}$$

$$L = \frac{9 \times 4 \times 7}{1 \times 7 \times 9 \times 4 \times 4}$$

$$\boxed{L = \frac{1}{4}}$$

$$7) M = \frac{56}{21} \div \frac{16}{3}$$

$$M = \frac{56}{21} \times \frac{3}{16}$$

$$M = \frac{56 \times 3}{21 \times 16}$$

$$M = \frac{7 \times 8 \times 3}{3 \times 7 \times 2 \times 8}$$

$$\boxed{M = \frac{1}{2}}$$

$$8) N = \frac{170}{\frac{140}{3}}$$

$$N = 170 \div \frac{140}{3}$$

$$N = 170 \times \frac{3}{140}$$

$$N = \frac{170}{1} \times \frac{3}{140}$$

$$N = \frac{170 \times 3}{140}$$

$$N = \frac{17 \times 10 \times 3}{14 \times 10}$$

$$\boxed{N = \frac{51}{14}}$$

Bonus Track

$$Z = 2,25 + \frac{1 - \frac{5}{4}}{4 + \frac{1,5}{1 - \frac{1}{4}}}$$

$$Z = \frac{225}{100} + \frac{1 - \frac{5}{4} + \frac{1}{4}}{4 + \frac{1,5}{\frac{4}{4} - \frac{1}{4}}}$$

$$Z = \frac{9 \times 25}{4 \times 25} + \frac{1 - \frac{5}{5}}{4 + \frac{\frac{3}{3}}{\frac{3}{4}}}$$

$$Z = \frac{9}{4} + \frac{1 - 5 \times \frac{4}{5}}{4 + \frac{3}{2} \times \frac{4}{3}}$$

$$Z = \frac{9}{4} + \frac{1 - \frac{5 \times 4}{1 \times 5}}{4 + \frac{3 \times 2 \times 2}{2 \times 3}}$$

$$Z = \frac{9}{4} + \frac{1-4}{4+2}$$

$$Z = \frac{9}{4} + \frac{-3}{6}$$

$$Z = \frac{9}{4} - \frac{3}{6}$$

$$Z = \frac{9}{4} - \frac{1 \times 3}{2 \times 3}$$

$$Z = \frac{9}{4} - \frac{1}{2}$$

$$Z = \frac{9}{4} - \frac{1 \times 2}{2 \times 2}$$

$$Z = \frac{9}{4} - \frac{2}{4}$$

$$\boxed{Z = \frac{7}{4}}$$