

**Corrigé de l'exercice 1**

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = \frac{13}{6} - \frac{13}{30}$$

$$A = \frac{13 \times 5}{6 \times 5} - \frac{13}{30}$$

$$A = \frac{52}{30}$$

$$A = \frac{26 \times 2}{15 \times 2}$$

$$A = \frac{26}{15}$$

$$B = \frac{3}{14} + \frac{4}{7}$$

$$B = \frac{3}{14} + \frac{4 \times 2}{7 \times 2}$$

$$B = \frac{11}{14}$$

$$C = \frac{11}{3} + \frac{15}{4}$$

$$C = \frac{11 \times 4}{3 \times 4} + \frac{15 \times 3}{4 \times 3}$$

$$C = \frac{89}{12}$$

$$D = \frac{11}{5} - \frac{13}{3}$$

$$D = \frac{11 \times 3}{5 \times 3} - \frac{13 \times 5}{3 \times 5}$$

$$D = \frac{-32}{15}$$

$$E = \frac{13}{5} + \frac{-7}{2}$$

$$E = \frac{13 \times 2}{5 \times 2} + \frac{-7 \times 5}{2 \times 5}$$

$$E = \frac{-9}{10}$$

$$F = \frac{11}{2} - \frac{-13}{9}$$

$$F = \frac{11 \times 9}{2 \times 9} - \frac{-13 \times 2}{9 \times 2}$$

$$F = \frac{125}{18}$$

$$G = \frac{7}{6} - \frac{-4}{9}$$

$$G = \frac{7 \times 3}{6 \times 3} - \frac{-4 \times 2}{9 \times 2}$$

$$G = \frac{29}{18}$$

$$H = \frac{7}{6} + \frac{-10}{9}$$

$$H = \frac{7 \times 3}{6 \times 3} + \frac{-10 \times 2}{9 \times 2}$$

$$H = \frac{1}{18}$$

**Corrigé de l'exercice 2**

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = \frac{3}{4} \times \frac{3}{5}$$

$$A = \frac{9}{20}$$

$$B = \frac{3}{5} \div \frac{2}{7}$$

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

$$B = \frac{21}{10}$$

$$C = \frac{-5}{2} \div \frac{1}{-7}$$

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

$$C = \frac{35}{2}$$

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

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

$$E = \frac{8}{27} \times \frac{3}{16}$$

$$E = \frac{1 \times 8}{9 \times 3} \times \frac{1 \times 3}{2 \times 8}$$

$$E = \frac{1}{18}$$

$$F = \frac{27}{40} \div \frac{9}{28}$$

$$F = \frac{27}{40} \times \frac{28}{9}$$

$$F = \frac{3 \times 9}{10 \times 4} \times \frac{7 \times 4}{1 \times 9}$$

$$F = \frac{21}{10}$$

$$G = 0 \div \frac{-16}{63}$$

$$G = 0 \times \frac{-63}{16}$$

$$G = 0$$

$$H = \frac{-48}{-27} \times \frac{12}{-40}$$

$$H = \frac{-16 \times 2}{-9 \times 3} \times \frac{3 \times 4}{-10 \times 4}$$

$$H = \frac{16}{9} \times \frac{-3}{10}$$

$$H = \frac{8 \times 2}{3 \times 3} \times \frac{-1 \times 3}{5 \times 2}$$

$$H = \frac{-8}{15}$$

**Corrigé de l'exercice 3**

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = \frac{7}{2} + \frac{11}{36} \times \frac{9}{5}$$

$$A = \frac{7}{2} + \frac{11}{4 \times 9} \times \frac{1 \times 9}{5}$$

$$A = \frac{7}{2} + \frac{11}{20}$$

$$A = \frac{7 \times 10}{2 \times 10} + \frac{11}{20}$$

$$A = \frac{81}{20}$$

$$B = \frac{-13}{3} \times \left( \frac{8}{13} - \frac{16}{13} \right)$$

$$B = \frac{-13}{3} \times \frac{-8}{13}$$

$$B = \frac{-1 \times \cancel{13}}{3} \times \frac{-8}{1 \times \cancel{13}}$$

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

$$C = \frac{-3}{4} + \frac{-13}{2} - \frac{15}{28}$$

$$C = \frac{-3}{4} + \frac{-13 \times 2}{2 \times 2} - \frac{15}{28}$$

$$C = \frac{-29}{4} - \frac{15}{28}$$

$$C = \frac{-29 \times 7}{4 \times 7} - \frac{15}{28}$$

$$C = \frac{-218}{28}$$

$$C = \frac{-109 \times 2}{14 \times 2}$$

$$C = \frac{-109}{14}$$

$$D = \frac{12}{5} - \frac{16}{15} + \frac{11}{3}$$

$$D = \frac{12 \times 3}{5 \times 3} - \frac{16}{15} + \frac{11}{3}$$

$$D = \frac{20}{15} + \frac{11}{3}$$

$$D = \frac{4 \times 5}{3 \times 5} + \frac{11}{3}$$

$$D = \frac{4}{3} + \frac{11}{3}$$

$$D = \frac{15}{3}$$

$$D = \frac{5 \times 3}{1 \times 3}$$

$$D = 5$$

$$E = \frac{12}{5} + \frac{-1}{30} \div \frac{-1}{36}$$

$$E = \frac{12}{5} + \frac{-1}{30} \times -36$$

$$E = \frac{12}{5} + \frac{-1}{5 \times \cancel{6}} \times -6 \times \cancel{6}$$

$$E = \frac{12}{5} + \frac{6}{5}$$

$$E = \frac{18}{5}$$

$$F = \frac{-10}{11} \div \frac{-1}{36} + \frac{-14}{11}$$

$$F = \frac{-10}{11} \times -36 + \frac{-14}{11}$$

$$F = \frac{360}{11} + \frac{-14}{11}$$

$$F = \frac{346}{11}$$

### Corrigé de l'exercice 4

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = 13 - \frac{4}{5}$$

$$A = \frac{13 \times 5}{1 \times 5} - \frac{4}{5}$$

$$A = \frac{61}{5}$$

$$B = \frac{7}{2} + \frac{9}{20}$$

$$B = \frac{7 \times 10}{2 \times 10} + \frac{9}{20}$$

$$B = \frac{79}{20}$$

$$C = \frac{11}{5} - \frac{4}{3}$$

$$C = \frac{11 \times 3}{5 \times 3} - \frac{4 \times 5}{3 \times 5}$$

$$C = \frac{13}{15}$$

$$D = \frac{6}{5} + \frac{3}{4}$$

$$D = \frac{6 \times 4}{5 \times 4} + \frac{3 \times 5}{4 \times 5}$$

$$D = \frac{39}{20}$$

$$E = \frac{-8}{9} + \frac{-1}{2}$$

$$E = \frac{-8 \times 2}{9 \times 2} + \frac{-1 \times 9}{2 \times 9}$$

$$E = \frac{-25}{18}$$

$$F = \frac{-3}{5} - \frac{-13}{3}$$

$$F = \frac{-3 \times 3}{5 \times 3} - \frac{-13 \times 5}{3 \times 5}$$

$$F = \frac{56}{15}$$

$$G = \frac{-13}{10} + \frac{3}{35}$$

$$G = \frac{-13 \times 7}{10 \times 7} + \frac{3 \times 2}{35 \times 2}$$

$$G = \frac{-85}{70}$$

$$G = \frac{-17 \times 5}{14 \times 5}$$

$$G = \frac{-17}{14}$$

$$H = \frac{13}{14} - \frac{-5}{21}$$

$$H = \frac{13 \times 3}{14 \times 3} - \frac{-5 \times 2}{21 \times 2}$$

$$H = \frac{49}{42}$$

$$H = \frac{7 \times 7}{6 \times 7}$$

$$H = \frac{7}{6}$$

### Corrigé de l'exercice 5

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = \frac{5}{8} \div \frac{2}{3}$$

$$A = \frac{5}{8} \times \frac{3}{2}$$

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

$$B = \frac{9}{8} \times \frac{9}{2}$$

$$B = \frac{81}{16}$$

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

$$C = \frac{-7}{10}$$

$$D = \frac{7}{10} \div \frac{-2}{-9}$$

$$D = \frac{7}{10} \times \frac{9}{2}$$

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

$$E = \frac{35}{6} \times \frac{3}{56}$$

$$E = \frac{5 \times \cancel{7}}{2 \times \cancel{3}} \times \frac{1 \times \cancel{3}}{8 \times \cancel{7}}$$

$$E = \frac{5}{16}$$

$$F = \frac{5}{72} \div \frac{25}{72}$$

$$F = \frac{5}{72} \times \frac{72}{25}$$

$$F = \frac{1 \times \cancel{5}}{1 \times \cancel{72}} \times \frac{1 \times \cancel{72}}{5 \times \cancel{5}}$$

$$F = \frac{1}{5}$$

$$G = \frac{-12}{-20} \times \frac{35}{-20}$$

$$G = \frac{-\cancel{3} \times \cancel{4}}{-5 \times \cancel{4}} \times \frac{7 \times \cancel{5}}{-4 \times \cancel{5}}$$

$$G = \frac{3}{5} \times \frac{-7}{4}$$

$$G = \frac{-21}{20}$$

$$H = \frac{15}{16} \div \frac{10}{-24}$$

$$H = \frac{15}{16} \times \frac{-24}{10}$$

$$H = \frac{15}{16} \times \frac{-12 \times \cancel{2}}{5 \times \cancel{2}}$$

$$H = \frac{15}{16} \times \frac{-12}{5}$$

$$H = \frac{3 \times \cancel{5}}{4 \times \cancel{4}} \times \frac{-3 \times \cancel{4}}{1 \times \cancel{5}}$$

$$H = \frac{-9}{4}$$

### Corrigé de l'exercice 6

Effectuer les calculs suivants et donner le résultat sous la forme d'une fraction simplifiée :

$$A = \frac{14}{9} + \frac{4}{15} \div \frac{12}{25}$$

$$A = \frac{14}{9} + \frac{4}{15} \times \frac{25}{12}$$

$$A = \frac{14}{9} + \frac{1 \times \cancel{4}}{3 \times \cancel{3}} \times \frac{5 \times \cancel{5}}{3 \times \cancel{4}}$$

$$A = \frac{14}{9} + \frac{5}{9}$$

$$A = \frac{19}{9}$$

$$B = \frac{-10}{7} \div \frac{-1}{20} - \frac{-12}{7}$$

$$B = \frac{-10}{7} \times -20 - \frac{-12}{7}$$

$$B = \frac{200}{7} - \frac{-12}{7}$$

$$B = \frac{212}{7}$$

$$C = \frac{-16}{17} + \frac{5}{17} \div \frac{1}{25}$$

$$C = \frac{-16}{17} + \frac{5}{17} \times 25$$

$$C = \frac{-16}{17} + \frac{125}{17}$$

$$C = \frac{109}{17}$$

$$D = \frac{7}{20} \times \frac{-11}{7} \div \frac{11}{26}$$

$$D = \frac{1 \times \cancel{7}}{20} \times \frac{-11}{1 \times \cancel{7}} \div \frac{11}{26}$$

$$D = \frac{-11}{20} \div \frac{11}{26}$$

$$D = \frac{-11}{20} \times \frac{26}{11}$$

$$D = \frac{-1 \times \cancel{11}}{10 \times \cancel{2}} \times \frac{13 \times \cancel{2}}{1 \times \cancel{11}}$$

$$D = \frac{-13}{10}$$

$$E = \frac{8}{39} \div \left( \frac{-5}{24} + \frac{1}{24} \right)$$

$$E = \frac{8}{39} \div \frac{-4}{24}$$

$$E = \frac{8}{39} \div \frac{-1 \times 4}{6 \times 4}$$

$$E = \frac{8}{39} \div \frac{-1}{6}$$

$$E = \frac{8}{39} \times -6$$

$$E = \frac{8}{13 \times \cancel{3}} \times -2 \times \cancel{3}$$

$$E = \frac{-16}{13}$$

$$F = \frac{3}{16} + \frac{13}{2} - \frac{13}{2}$$

$$F = \frac{3}{16} + \frac{13 \times 8}{2 \times 8} - \frac{13}{2}$$

$$F = \frac{107}{16} - \frac{13}{2}$$

$$F = \frac{107}{16} - \frac{13 \times 8}{2 \times 8}$$

$$F = \frac{3}{16}$$