

Exercice 1

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

$$\begin{array}{l} A = \frac{6}{5} + \frac{9}{35} \\ B = \frac{3}{10} - \frac{9}{70} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{7}{3} - \frac{4}{15} \\ D = \frac{10}{3} + \frac{10}{27} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{6}{5} - \frac{4}{25} \\ F = \frac{8}{15} + \frac{4}{3} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{4}{7} + \frac{9}{49} \\ H = \frac{9}{10} + \frac{7}{2} \end{array} \right.$$

Exercice 2

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

$$\begin{array}{l} A = \frac{3}{2} - \frac{3}{8} \\ B = \frac{4}{25} + \frac{6}{5} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{7}{10} - \frac{7}{100} \\ D = \frac{7}{9} - \frac{7}{81} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{9}{40} + \frac{3}{8} \\ F = \frac{5}{6} - \frac{7}{54} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{1}{10} - \frac{7}{80} \\ H = \frac{8}{9} + \frac{2}{45} \end{array} \right.$$

Exercice 3

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

$$\begin{array}{l} A = \frac{48}{25} \times \frac{15}{16} \\ B = \frac{8}{45} \times \frac{9}{20} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{18}{35} \times \frac{49}{30} \\ D = \frac{25}{27} \times \frac{27}{40} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{9}{56} \times \frac{8}{21} \\ F = \frac{40}{63} \times \frac{63}{50} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{35}{16} \times \frac{24}{49} \\ H = \frac{9}{28} \times \frac{16}{27} \end{array} \right.$$

Exercice 4

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

$$\begin{array}{l} A = \frac{7}{18} \times \frac{27}{8} \\ B = \frac{16}{35} \times \frac{5}{16} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{18}{25} \times \frac{35}{12} \\ D = \frac{40}{21} \times \frac{7}{45} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{27}{40} \times \frac{10}{9} \\ F = \frac{7}{100} \times \frac{80}{63} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{70}{27} \times \frac{27}{70} \\ H = \frac{16}{27} \times \frac{21}{16} \end{array} \right.$$

Corrigé de l'exercice 1

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

$$A = \frac{6}{5} + \frac{9}{35}$$

$$A = \frac{6 \times 7}{5 \times 7} + \frac{9}{35}$$

$$A = \frac{51}{35}$$

$$B = \frac{3}{10} - \frac{9}{70}$$

$$B = \frac{3 \times 7}{10 \times 7} - \frac{9}{70}$$

$$B = \frac{6 \times 2}{35 \times 2}$$

$$B = \frac{6}{35}$$

$$C = \frac{7}{3} - \frac{4}{15}$$

$$C = \frac{7 \times 5}{3 \times 5} - \frac{4}{15}$$

$$C = \frac{31}{15}$$

$$D = \frac{10}{3} + \frac{10}{27}$$

$$D = \frac{10 \times 9}{3 \times 9} + \frac{10}{27}$$

$$D = \frac{100}{27}$$

$$E = \frac{6}{5} - \frac{4}{25}$$

$$E = \frac{6 \times 5}{5 \times 5} - \frac{4}{25}$$

$$E = \frac{26}{25}$$

$$F = \frac{8}{15} + \frac{4}{3}$$

$$F = \frac{8}{15} + \frac{4 \times 5}{3 \times 5}$$

$$F = \frac{28}{15}$$

$$G = \frac{4}{7} + \frac{9}{49}$$

$$G = \frac{4 \times 7}{7 \times 7} + \frac{9}{49}$$

$$G = \frac{37}{49}$$

$$H = \frac{9}{10} + \frac{7}{2}$$

$$H = \frac{9}{10} + \frac{7 \times 5}{2 \times 5}$$

$$H = \frac{22 \times 2}{5 \times 2}$$

$$H = \frac{22}{5}$$

Corrigé de l'exercice 2

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

$$A = \frac{3}{2} - \frac{3}{8}$$

$$A = \frac{3 \times 4}{2 \times 4} - \frac{3}{8}$$

$$A = \frac{9}{8}$$

$$B = \frac{4}{25} + \frac{6}{5}$$

$$B = \frac{4}{25} + \frac{6 \times 5}{5 \times 5}$$

$$B = \frac{34}{25}$$

$$C = \frac{7}{10} - \frac{7}{100}$$

$$C = \frac{7 \times 10}{10 \times 10} - \frac{7}{100}$$

$$C = \frac{63}{100}$$

$$D = \frac{7}{9} - \frac{7}{81}$$

$$D = \frac{7 \times 9}{9 \times 9} - \frac{7}{81}$$

$$D = \frac{56}{81}$$

$$E = \frac{9}{40} + \frac{3}{8}$$

$$E = \frac{9}{40} + \frac{3 \times 5}{8 \times 5}$$

$$E = \frac{3 \times 8}{5 \times 8}$$

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

$$F = \frac{5}{6} - \frac{7}{54}$$

$$F = \frac{5 \times 9}{6 \times 9} - \frac{7}{54}$$

$$F = \frac{19 \times 2}{27 \times 2}$$

$$F = \frac{19}{27}$$

$$G = \frac{1}{10} - \frac{7}{80}$$

$$G = \frac{1 \times 8}{10 \times 8} - \frac{7}{80}$$

$$G = \frac{1}{80}$$

$$H = \frac{8}{9} + \frac{2}{45}$$

$$H = \frac{8 \times 5}{9 \times 5} + \frac{2}{45}$$

$$H = \frac{14 \times 3}{15 \times 3}$$

$$H = \frac{14}{15}$$

Corrigé de l'exercice 3

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

$$A = \frac{48}{25} \times \frac{15}{16}$$

$$A = \frac{3 \times \cancel{16}}{5 \times \cancel{5}} \times \frac{3 \times \cancel{5}}{1 \times \cancel{16}}$$

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

$$B = \frac{8}{45} \times \frac{9}{20}$$

$$B = \frac{2 \times \cancel{4}}{5 \times \cancel{9}} \times \frac{1 \times \cancel{9}}{5 \times \cancel{4}}$$

$$B = \frac{2}{25}$$

$$C = \frac{18}{35} \times \frac{49}{30}$$

$$C = \frac{3 \times \cancel{6}}{5 \times \cancel{7}} \times \frac{7 \times \cancel{7}}{5 \times \cancel{6}}$$

$$C = \frac{21}{25}$$

$$D = \frac{25}{27} \times \frac{27}{40}$$

$$D = \frac{5 \times \cancel{9}}{1 \times \cancel{27}} \times \frac{1 \times \cancel{27}}{8 \times \cancel{9}}$$

$$D = \frac{5}{8}$$

$$E = \frac{9}{56} \times \frac{8}{21}$$

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

$$E = \frac{3}{49}$$

$$F = \frac{40}{63} \times \frac{63}{50}$$

$$F = \frac{4 \times \cancel{10}}{1 \times \cancel{63}} \times \frac{1 \times \cancel{63}}{5 \times \cancel{10}}$$

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

$$G = \frac{35}{16} \times \frac{24}{49}$$

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

$$G = \frac{15}{14}$$

$$H = \frac{9}{28} \times \frac{16}{27}$$

$$H = \frac{1 \times \cancel{9}}{7 \times \cancel{4}} \times \frac{4 \times \cancel{4}}{3 \times \cancel{9}}$$

$$H = \frac{4}{21}$$

Corrigé de l'exercice 4

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

$$A = \frac{7}{18} \times \frac{27}{8}$$

$$A = \frac{7}{2 \times \cancel{9}} \times \frac{3 \times \cancel{9}}{8}$$

$$A = \frac{21}{16}$$

$$B = \frac{16}{35} \times \frac{5}{16}$$

$$B = \frac{1 \times \cancel{16}}{7 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{1 \times \cancel{16}}$$

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

$$C = \frac{18}{25} \times \frac{35}{12}$$

$$C = \frac{3 \times \cancel{6}}{5 \times \cancel{5}} \times \frac{7 \times \cancel{5}}{2 \times \cancel{6}}$$

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

$$D = \frac{40}{21} \times \frac{7}{45}$$

$$D = \frac{8 \times \cancel{5}}{3 \times \cancel{7}} \times \frac{1 \times \cancel{7}}{9 \times \cancel{5}}$$

$$D = \frac{8}{27}$$

$$E = \frac{27}{40} \times \frac{10}{9}$$

$$E = \frac{3 \times \cancel{9}}{4 \times \cancel{10}} \times \frac{1 \times \cancel{10}}{1 \times \cancel{9}}$$

$$E = \frac{3}{4}$$

$$F = \frac{7}{100} \times \frac{80}{63}$$

$$F = \frac{1 \times \cancel{7}}{5 \times \cancel{20}} \times \frac{4 \times \cancel{20}}{9 \times \cancel{7}}$$

$$F = \frac{4}{45}$$

$$G = \frac{70}{27} \times \frac{27}{70}$$

$$G = \frac{1 \times \cancel{70}}{1 \times \cancel{27}} \times \frac{1 \times \cancel{27}}{1 \times \cancel{70}}$$

$$G = 1$$

$$H = \frac{16}{27} \times \frac{21}{16}$$

$$H = \frac{1 \times \cancel{16}}{9 \times \cancel{3}} \times \frac{7 \times \cancel{3}}{1 \times \cancel{16}}$$

$$H = \frac{7}{9}$$