

**Exercice 1**

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

$$\begin{array}{l} A = \frac{3}{2} \times \frac{5}{8} \\ B = \frac{7}{4} \div \frac{3}{7} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-1}{-3} \times \frac{-1}{-4} \\ D = \frac{-7}{2} \div \frac{-2}{-9} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{18}{25} \times \frac{35}{18} \\ F = \frac{32}{35} \div \frac{16}{35} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-21}{40} \div \frac{-42}{-12} \\ H = \frac{-35}{27} \times \frac{45}{-21} \end{array} \right.$$

**Exercice 2**

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

$$\begin{array}{l} A = \frac{1}{4} \div \frac{3}{5} \\ B = \frac{7}{2} \times \frac{3}{4} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{4}{3} \div \frac{1}{-2} \\ D = \frac{-1}{-8} \times \frac{-3}{2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{20}{49} \div \frac{2}{49} \\ F = \frac{12}{35} \times \frac{35}{54} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{63}{-63} \times \frac{9}{14} \\ H = \frac{15}{81} \div \frac{30}{-63} \end{array} \right.$$

**Exercice 3**

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

$$\begin{array}{l} A = \frac{3}{4} \times \frac{7}{2} \\ B = \frac{7}{2} \div \frac{6}{7} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{5}{4} \div \frac{1}{-7} \\ D = \frac{3}{4} \times \frac{9}{-4} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{15}{56} \times \frac{49}{15} \\ F = \frac{25}{21} \div \frac{5}{14} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-40}{-21} \times \frac{49}{-40} \\ H = \frac{-15}{28} \div \frac{3}{14} \end{array} \right.$$

**Exercice 4**

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

$$\begin{array}{l} A = \frac{7}{3} \times \frac{7}{2} \\ B = \frac{2}{3} \div \frac{1}{5} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-5}{-8} \times \frac{3}{-2} \\ D = \frac{8}{3} \div \frac{-1}{-10} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{32}{27} \div \frac{40}{63} \\ F = \frac{25}{48} \times \frac{24}{35} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-56}{32} \div \frac{-63}{32} \\ H = \frac{-8}{-35} \times \frac{-70}{-80} \end{array} \right.$$

**Exercice 5**

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

$$\begin{array}{l} A = \frac{2}{5} \div \frac{1}{7} \\ B = \frac{4}{3} \times \frac{2}{3} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-5}{2} \div \frac{-3}{-7} \\ D = \frac{-7}{-2} \times \frac{3}{2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{16}{63} \div \frac{32}{49} \\ F = \frac{40}{49} \times \frac{49}{16} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-27}{10} \div \frac{-54}{-15} \\ H = \frac{16}{-18} \times \frac{-6}{-12} \end{array} \right.$$

**Exercice 6**

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

$$\begin{array}{l} A = \frac{9}{8} \times \frac{1}{2} \\ B = \frac{4}{3} \div \frac{3}{5} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-1}{6} \div \frac{2}{7} \\ D = \frac{-9}{2} \times \frac{9}{-2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{49}{24} \div \frac{7}{24} \\ F = \frac{49}{25} \times \frac{25}{63} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{16}{-90} \times \frac{-45}{-32} \\ H = \frac{63}{16} \div \frac{63}{20} \end{array} \right.$$

**Corrigé de l'exercice 1**

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

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

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

$$B = \frac{7}{4} \div \frac{3}{7}$$

$$B = \frac{7}{4} \times \frac{7}{3}$$

$$B = \frac{49}{12}$$

$$C = \frac{-1}{-3} \times \frac{-1}{-4}$$

$$C = \frac{1}{12}$$

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

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

$$D = \frac{-63}{4}$$

$$E = \frac{18}{25} \times \frac{35}{18}$$

$$E = \frac{1 \times \cancel{18}}{5 \times \cancel{5}} \times \frac{7 \times \cancel{5}}{1 \times \cancel{18}}$$

$$E = \frac{7}{5}$$

$$F = \frac{32}{35} \div \frac{16}{35}$$

$$F = \frac{32}{35} \times \frac{35}{16}$$

$$F = \frac{2 \times \cancel{16}}{1 \times \cancel{35}} \times \frac{1 \times \cancel{35}}{1 \times \cancel{16}}$$

$$F = 2$$

$$G = \frac{-21}{40} \div \frac{-42}{-12}$$

$$G = \frac{-21}{40} \times \frac{12}{42}$$

$$G = \frac{-21}{40} \times \frac{2 \times \cancel{6}}{7 \times \cancel{6}}$$

$$G = \frac{-21}{40} \times \frac{2}{7}$$

$$G = \frac{-3 \times \cancel{7}}{20 \times \cancel{2}} \times \frac{1 \times \cancel{2}}{1 \times \cancel{7}}$$

$$G = \frac{-3}{20}$$

$$H = \frac{-35}{27} \times \frac{45}{-21}$$

$$H = \frac{-35}{27} \times \frac{15 \times \cancel{3}}{-7 \times \cancel{3}}$$

$$H = \frac{-35}{27} \times \frac{-15}{7}$$

$$H = \frac{-5 \times \cancel{7}}{9 \times \cancel{3}} \times \frac{-5 \times \cancel{3}}{1 \times \cancel{7}}$$

$$H = \frac{25}{9}$$

**Corrigé de l'exercice 2**

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

$$A = \frac{1}{4} \div \frac{3}{5}$$

$$A = \frac{1}{4} \times \frac{5}{3}$$

$$A = \frac{5}{12}$$

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

$$B = \frac{21}{8}$$

$$C = \frac{4}{3} \div \frac{1}{-2}$$

$$C = \frac{4}{3} \times -2$$

$$C = \frac{-8}{3}$$

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

$$D = \frac{-3}{16}$$

$$E = \frac{20}{49} \div \frac{2}{49}$$

$$E = \frac{20}{49} \times \frac{49}{2}$$

$$E = \frac{10 \times \cancel{2}}{1 \times \cancel{49}} \times \frac{1 \times \cancel{49}}{1 \times \cancel{2}}$$

$$E = 10$$

$$F = \frac{12}{35} \times \frac{35}{54}$$

$$F = \frac{2 \times \cancel{6}}{1 \times \cancel{35}} \times \frac{1 \times \cancel{35}}{9 \times \cancel{6}}$$

$$F = \frac{2}{9}$$

$$G = \frac{63}{-63} \times \frac{9}{14}$$

$$G = \frac{1 \times \cancel{63}}{-1 \times \cancel{63}} \times \frac{9}{14}$$

$$G = -1 \times \frac{9}{14}$$

$$G = \frac{-9}{14}$$

$$H = \frac{15}{81} \div \frac{30}{-63}$$

$$H = \frac{15}{81} \times \frac{-63}{30}$$

$$H = \frac{5 \times \cancel{3}}{27 \times \cancel{3}} \times \frac{-21 \times \cancel{3}}{10 \times \cancel{3}}$$

$$H = \frac{5}{27} \times \frac{-21}{10}$$

$$H = \frac{1 \times \cancel{5}}{9 \times \cancel{3}} \times \frac{-7 \times \cancel{3}}{2 \times \cancel{5}}$$

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

**Corrigé de l'exercice 3**

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

$$A = \frac{3}{4} \times \frac{7}{2}$$

$$A = \frac{21}{8}$$

$$B = \frac{7}{2} \div \frac{6}{7}$$

$$B = \frac{7}{2} \times \frac{7}{6}$$

$$B = \frac{49}{12}$$

$$C = \frac{5}{4} \div \frac{1}{-7}$$

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

$$C = \frac{-35}{4}$$

$$D = \frac{3}{4} \times \frac{9}{-4}$$

$$D = \frac{-27}{16}$$

$$E = \frac{15}{56} \times \frac{49}{15}$$

$$E = \frac{1 \times \cancel{15}}{8 \times \cancel{7}} \times \frac{7 \times \cancel{7}}{1 \times \cancel{15}}$$

$$E = \frac{7}{8}$$

$$F = \frac{25}{21} \div \frac{5}{14}$$

$$F = \frac{25}{21} \times \frac{14}{5}$$

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

$$F = \frac{10}{3}$$

$$G = \frac{-40}{-21} \times \frac{49}{-40}$$

$$G = \frac{1 \times \cancel{40}}{3 \times \cancel{7}} \times \frac{-7 \times \cancel{7}}{1 \times \cancel{40}}$$

$$G = \frac{-7}{3}$$

$$H = \frac{-15}{28} \div \frac{3}{14}$$

$$H = \frac{-15}{28} \times \frac{14}{3}$$

$$H = \frac{-5 \times \cancel{3}}{2 \times \cancel{14}} \times \frac{1 \times \cancel{14}}{1 \times \cancel{3}}$$

$$H = \frac{-5}{2}$$

### Corrigé de l'exercice 4

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

$$A = \frac{7}{3} \times \frac{7}{2}$$

$$A = \frac{49}{6}$$

$$B = \frac{2}{3} \div \frac{1}{5}$$

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

$$B = \frac{10}{3}$$

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

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

$$D = \frac{8}{3} \div \frac{-1}{-10}$$

$$D = \frac{8}{3} \times 10$$

$$D = \frac{80}{3}$$

$$E = \frac{32}{27} \div \frac{40}{63}$$

$$E = \frac{32}{27} \times \frac{63}{40}$$

$$E = \frac{4 \times \cancel{8}}{3 \times \cancel{9}} \times \frac{7 \times \cancel{9}}{5 \times \cancel{8}}$$

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

$$F = \frac{25}{48} \times \frac{24}{35}$$

$$F = \frac{5 \times \cancel{5}}{2 \times \cancel{24}} \times \frac{1 \times \cancel{24}}{7 \times \cancel{7}}$$

$$F = \frac{5}{14}$$

$$G = \frac{-56}{32} \div \frac{-63}{32}$$

$$G = \frac{-56}{32} \times \frac{-32}{63}$$

$$G = \frac{-7 \times \cancel{8}}{4 \times \cancel{8}} \times \frac{-32}{63}$$

$$G = \frac{-7}{4} \times \frac{-32}{63}$$

$$G = \frac{-1 \times \cancel{7}}{1 \times \cancel{4}} \times \frac{-8 \times \cancel{4}}{9 \times \cancel{7}}$$

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

$$H = \frac{-8}{-35} \times \frac{-70}{-80}$$

$$H = \frac{-8}{-35} \times \frac{-7 \times \cancel{10}}{-8 \times \cancel{10}}$$

$$H = \frac{8}{35} \times \frac{7}{8}$$

$$H = \frac{1 \times \cancel{8}}{5 \times \cancel{7}} \times \frac{1 \times \cancel{7}}{1 \times \cancel{8}}$$

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

### Corrigé de l'exercice 5

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

$$A = \frac{2}{5} \div \frac{1}{7}$$

$$A = \frac{2}{5} \times 7$$

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

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

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

$$C = \frac{-5}{2} \div \frac{-3}{-7}$$

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

$$C = \frac{-35}{6}$$

$$D = \frac{-7}{-2} \times \frac{3}{2}$$

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

$$E = \frac{16}{63} \div \frac{32}{49}$$

$$E = \frac{16}{63} \times \frac{49}{32}$$

$$E = \frac{1 \times \cancel{16}}{9 \times \cancel{7}} \times \frac{7 \times \cancel{7}}{2 \times \cancel{16}}$$

$$E = \frac{7}{18}$$

$$F = \frac{40}{49} \times \frac{49}{16}$$

$$F = \frac{5 \times \cancel{8}}{1 \times \cancel{40}} \times \frac{1 \times \cancel{40}}{2 \times \cancel{8}}$$

$$F = \frac{5}{2}$$

$$G = \frac{-27}{10} \div \frac{-54}{-15}$$

$$G = \frac{-27}{10} \times \frac{15}{54}$$

$$G = \frac{-27}{10} \times \frac{5 \times \cancel{3}}{18 \times \cancel{3}}$$

$G = \frac{-27}{10} \times \frac{5}{18}$ $G = \frac{-3 \times \cancel{9}}{2 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{2 \times \cancel{9}}$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">G = \frac{-3}{4}</math> </div> $H = \frac{16}{-18} \times \frac{-6}{-12}$	$H = \frac{8 \times \cancel{2}}{-9 \times \cancel{2}} \times \frac{-1 \times \cancel{6}}{-2 \times \cancel{6}}$ $H = \frac{-8}{9} \times \frac{1}{2}$	$H = \frac{-4 \times \cancel{2}}{9} \times \frac{1}{1 \times \cancel{2}}$ <div style="border: 1px solid black; padding: 5px;"> <math display="block">H = \frac{-4}{9}</math> </div>
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### Corrigé de l'exercice 6

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

$A = \frac{9}{8} \times \frac{1}{2}$ <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">A = \frac{9}{16}</math> </div> $B = \frac{4}{3} \div \frac{3}{5}$ $B = \frac{4}{3} \times \frac{5}{3}$ <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">B = \frac{20}{9}</math> </div> $C = \frac{-1}{6} \div \frac{2}{7}$ $C = \frac{-1}{6} \times \frac{7}{2}$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">C = \frac{-7}{12}</math> </div> $D = \frac{-9}{2} \times \frac{9}{-2}$ <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">D = \frac{81}{4}</math> </div> $E = \frac{49}{24} \div \frac{7}{24}$ $E = \frac{49}{24} \times \frac{24}{7}$ $E = \frac{7 \times \cancel{7}}{1 \times \cancel{24}} \times \frac{1 \times \cancel{24}}{1 \times \cancel{7}}$	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">E = 7</math> </div> $F = \frac{49}{25} \times \frac{25}{63}$ $F = \frac{7 \times \cancel{7}}{1 \times \cancel{25}} \times \frac{1 \times \cancel{25}}{9 \times \cancel{7}}$ <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">F = \frac{7}{9}</math> </div> $G = \frac{16}{-90} \times \frac{-45}{-32}$ $G = \frac{8 \times \cancel{2}}{-45 \times \cancel{2}} \times \frac{-45}{-32}$ $G = \frac{-8}{45} \times \frac{45}{32}$	$G = \frac{-1 \times \cancel{8}}{1 \times \cancel{45}} \times \frac{1 \times \cancel{45}}{4 \times \cancel{8}}$ <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <math display="block">G = \frac{-1}{4}</math> </div> $H = \frac{63}{16} \div \frac{63}{20}$ $H = \frac{63}{16} \times \frac{20}{63}$ $H = \frac{1 \times \cancel{63}}{4 \times \cancel{4}} \times \frac{5 \times \cancel{4}}{1 \times \cancel{63}}$ <div style="border: 1px solid black; padding: 5px;"> <math display="block">H = \frac{5}{4}</math> </div>
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**Exercice 1**

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

$$\begin{array}{l} A = \frac{6}{5} \div \frac{1}{4} \\ B = \frac{1}{2} \times \frac{1}{10} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-8}{7} \div \frac{1}{5} \\ D = \frac{-7}{-4} \times \frac{1}{5} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{63}{25} \times \frac{5}{42} \\ F = \frac{9}{28} \div \frac{45}{28} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-25}{28} \times \frac{-20}{-10} \\ H = \frac{-12}{63} \div \frac{32}{-36} \end{array} \right.$$

**Exercice 2**

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

$$\begin{array}{l} A = \frac{3}{7} \times \frac{9}{2} \\ B = \frac{8}{5} \div \frac{3}{4} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{3}{7} \div \frac{-1}{-8} \\ D = \frac{9}{-5} \times \frac{-7}{-4} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{40}{63} \times \frac{81}{10} \\ F = \frac{70}{27} \div \frac{7}{45} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{6}{24} \div \frac{-4}{-15} \\ H = \frac{-12}{-30} \times \frac{-15}{-20} \end{array} \right.$$

**Exercice 3**

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

$$\begin{array}{l} A = \frac{9}{10} \times \frac{1}{2} \\ B = \frac{1}{6} \div \frac{1}{7} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-1}{2} \times \frac{9}{10} \\ D = \frac{9}{4} \div \frac{2}{5} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{9}{20} \div \frac{9}{40} \\ F = \frac{10}{49} \times \frac{7}{20} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-8}{-14} \times \frac{-21}{32} \\ H = \frac{-12}{30} \div \frac{6}{-6} \end{array} \right.$$

**Exercice 4**

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

$$\begin{array}{l} A = \frac{1}{5} \times \frac{9}{4} \\ B = \frac{5}{2} \div \frac{6}{5} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{1}{-2} \times \frac{-9}{-10} \\ D = \frac{-10}{3} \div \frac{1}{-4} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{64}{35} \times \frac{15}{64} \\ F = \frac{90}{49} \div \frac{20}{21} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{36}{27} \div \frac{-8}{-45} \\ H = \frac{-80}{-24} \times \frac{-3}{-50} \end{array} \right.$$

**Exercice 5**

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

$$\begin{array}{l} A = \frac{3}{2} \div \frac{1}{7} \\ B = \frac{1}{2} \times \frac{9}{5} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{8}{7} \div \frac{-1}{-5} \\ D = \frac{-5}{2} \times \frac{9}{-2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{2}{49} \times \frac{49}{8} \\ F = \frac{80}{27} \div \frac{100}{27} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-27}{80} \times \frac{-20}{-12} \\ H = \frac{63}{32} \div \frac{14}{-28} \end{array} \right.$$

**Exercice 6**

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

$$\begin{array}{l} A = \frac{5}{7} \div \frac{1}{4} \\ B = \frac{1}{4} \times \frac{7}{2} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-5}{3} \div \frac{1}{8} \\ D = \frac{-1}{-2} \times \frac{7}{10} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{81}{40} \times \frac{40}{63} \\ F = \frac{45}{16} \div \frac{27}{20} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{8}{70} \div \frac{-20}{-70} \\ H = \frac{30}{-36} \times \frac{9}{10} \end{array} \right.$$

**Corrigé de l'exercice 1**

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

$$A = \frac{6}{5} \div \frac{1}{4}$$

$$A = \frac{6}{5} \times 4$$

$$A = \frac{24}{5}$$

$$B = \frac{1}{2} \times \frac{1}{10}$$

$$B = \frac{1}{20}$$

$$C = \frac{-8}{7} \div \frac{1}{5}$$

$$C = \frac{-8}{7} \times 5$$

$$C = \frac{-40}{7}$$

$$D = \frac{-7}{-4} \times \frac{1}{5}$$

$$D = \frac{7}{20}$$

$$E = \frac{63}{25} \times \frac{5}{42}$$

$$E = \frac{3 \times \cancel{21}}{5 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{2 \times \cancel{21}}$$

$$E = \frac{3}{10}$$

$$F = \frac{9}{28} \div \frac{45}{28}$$

$$F = \frac{9}{28} \times \frac{28}{45}$$

$$F = \frac{1 \times \cancel{9}}{1 \times \cancel{28}} \times \frac{1 \times \cancel{28}}{5 \times \cancel{9}}$$

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

$$G = \frac{-25}{28} \times \frac{-20}{-10}$$

$$G = \frac{-25}{28} \times \frac{-2 \times \cancel{10}}{-1 \times \cancel{10}}$$

$$G = \frac{-25}{28} \times 2$$

$$G = \frac{-25}{14 \times \cancel{2}} \times 1 \times \cancel{2}$$

$$G = \frac{-25}{14}$$

$$H = \frac{-12}{63} \div \frac{32}{-36}$$

$$H = \frac{-12}{63} \times \frac{-36}{32}$$

$$H = \frac{-4 \times \cancel{3}}{21 \times \cancel{3}} \times \frac{-9 \times \cancel{4}}{8 \times \cancel{4}}$$

$$H = \frac{-4}{21} \times \frac{-9}{8}$$

$$H = \frac{-1 \times \cancel{4}}{7 \times \cancel{3}} \times \frac{-3 \times \cancel{3}}{2 \times \cancel{4}}$$

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

**Corrigé de l'exercice 2**

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

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

$$A = \frac{27}{14}$$

$$B = \frac{8}{5} \div \frac{3}{4}$$

$$B = \frac{8}{5} \times \frac{4}{3}$$

$$B = \frac{32}{15}$$

$$C = \frac{3}{7} \div \frac{-1}{-8}$$

$$C = \frac{3}{7} \times 8$$

$$C = \frac{24}{7}$$

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

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

$$E = \frac{40}{63} \times \frac{81}{10}$$

$$E = \frac{4 \times \cancel{10}}{7 \times \cancel{9}} \times \frac{9 \times \cancel{9}}{1 \times \cancel{10}}$$

$$E = \frac{36}{7}$$

$$F = \frac{70}{27} \div \frac{7}{45}$$

$$F = \frac{70}{27} \times \frac{45}{7}$$

$$F = \frac{10 \times \cancel{7}}{3 \times \cancel{9}} \times \frac{5 \times \cancel{9}}{1 \times \cancel{7}}$$

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

$$G = \frac{6}{24} \div \frac{-4}{-15}$$

$$G = \frac{6}{24} \times \frac{15}{4}$$

$$G = \frac{1 \times \cancel{6}}{4 \times \cancel{6}} \times \frac{15}{4}$$

$$G = \frac{1}{4} \times \frac{15}{4}$$

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

$$H = \frac{-12}{-30} \times \frac{-15}{-20}$$

$$H = \frac{-2 \times \cancel{6}}{-5 \times \cancel{6}} \times \frac{-3 \times \cancel{5}}{-4 \times \cancel{5}}$$

$$H = \frac{2}{5} \times \frac{3}{4}$$

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

$$H = \frac{3}{10}$$

**Corrigé de l'exercice 3**

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

$$A = \frac{9}{10} \times \frac{1}{2}$$

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

$$B = \frac{1}{6} \div \frac{1}{7}$$

$$B = \frac{1}{6} \times 7$$

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

$$C = \frac{-1}{2} \times \frac{9}{10}$$

$$C = \frac{-9}{20}$$

$$D = \frac{9}{4} \div \frac{2}{5}$$

$$D = \frac{9}{4} \times \frac{5}{2}$$

$$D = \frac{45}{8}$$

$$E = \frac{9}{20} \div \frac{9}{40}$$

$$E = \frac{9}{20} \times \frac{40}{9}$$

$$E = \frac{1 \times \cancel{9}}{1 \times \cancel{20}} \times \frac{2 \times \cancel{20}}{1 \times \cancel{9}}$$

$$E = 2$$

$$F = \frac{10}{49} \times \frac{7}{20}$$

$$F = \frac{1 \times \cancel{10}}{7 \times \cancel{7}} \times \frac{1 \times \cancel{7}}{2 \times \cancel{10}}$$

$$F = \frac{1}{14}$$

$$G = \frac{-8}{-14} \times \frac{-21}{32}$$

$$G = \frac{-\cancel{4} \times \cancel{2}}{-7 \times \cancel{2}} \times \frac{-21}{32}$$

$$G = \frac{4}{7} \times \frac{-21}{32}$$

$$G = \frac{1 \times \cancel{4}}{1 \times \cancel{7}} \times \frac{-3 \times \cancel{7}}{8 \times \cancel{4}}$$

$$G = \frac{-3}{8}$$

$$H = \frac{-12}{30} \div \frac{6}{-6}$$

$$H = \frac{-12}{30} \times \frac{-6}{6}$$

$$H = \frac{-2 \times \cancel{6}}{5 \times \cancel{6}} \times \frac{-1 \times \cancel{6}}{1 \times \cancel{6}}$$

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

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

### Corrigé de l'exercice 4

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

$$A = \frac{1}{5} \times \frac{9}{4}$$

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

$$B = \frac{5}{2} \div \frac{6}{5}$$

$$B = \frac{5}{2} \times \frac{5}{6}$$

$$B = \frac{25}{12}$$

$$C = \frac{1}{-2} \times \frac{-9}{-10}$$

$$C = \frac{-9}{20}$$

$$D = \frac{-10}{3} \div \frac{1}{-4}$$

$$D = \frac{-10}{3} \times -4$$

$$D = \frac{40}{3}$$

$$E = \frac{64}{35} \times \frac{15}{64}$$

$$E = \frac{1 \times \cancel{64}}{7 \times \cancel{5}} \times \frac{3 \times \cancel{5}}{1 \times \cancel{64}}$$

$$E = \frac{3}{7}$$

$$F = \frac{90}{49} \div \frac{20}{21}$$

$$F = \frac{90}{49} \times \frac{21}{20}$$

$$F = \frac{9 \times \cancel{10}}{7 \times \cancel{7}} \times \frac{3 \times \cancel{7}}{2 \times \cancel{10}}$$

$$F = \frac{27}{14}$$

$$G = \frac{36}{27} \div \frac{-8}{-45}$$

$$G = \frac{36}{27} \times \frac{45}{8}$$

$$G = \frac{4 \times \cancel{9}}{3 \times \cancel{9}} \times \frac{45}{8}$$

$$G = \frac{4}{3} \times \frac{45}{8}$$

$$G = \frac{1 \times \cancel{4}}{1 \times \cancel{3}} \times \frac{15 \times \cancel{3}}{2 \times \cancel{4}}$$

$$G = \frac{15}{2}$$

$$H = \frac{-80}{-24} \times \frac{-3}{-50}$$

$$H = \frac{-10 \times \cancel{8}}{-3 \times \cancel{6}} \times \frac{-3}{-50}$$

$$H = \frac{10}{3} \times \frac{3}{50}$$

$$H = \frac{1 \times \cancel{10}}{1 \times \cancel{3}} \times \frac{1 \times \cancel{3}}{5 \times \cancel{10}}$$

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

### Corrigé de l'exercice 5

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

$$A = \frac{3}{2} \div \frac{1}{7}$$

$$A = \frac{3}{2} \times 7$$

$$A = \frac{21}{2}$$

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

$$B = \frac{9}{10}$$

$$C = \frac{8}{7} \div \frac{-1}{-5}$$

$$C = \frac{8}{7} \times 5$$

$$C = \frac{40}{7}$$

$$D = \frac{-5}{2} \times \frac{9}{-2}$$

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

$$E = \frac{2}{49} \times \frac{49}{8}$$

$$E = \frac{1 \times \cancel{2}}{1 \times \cancel{49}} \times \frac{1 \times \cancel{49}}{4 \times \cancel{2}}$$

$$E = \frac{1}{4}$$

$$F = \frac{80}{27} \div \frac{100}{27}$$

$$F = \frac{80}{27} \times \frac{27}{100}$$

$$F = \frac{4 \times \cancel{20}}{1 \times \cancel{27}} \times \frac{1 \times \cancel{27}}{5 \times \cancel{20}}$$

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

$$G = \frac{-27}{80} \times \frac{-20}{-12}$$

$$G = \frac{-27}{80} \times \frac{-5 \times \cancel{4}}{-3 \times \cancel{4}}$$

$$G = \frac{-27}{80} \times \frac{5}{3}$$

$$G = \frac{-9 \times \cancel{3}}{16 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{1 \times \cancel{3}}$$

$$G = \frac{-9}{16}$$

$$H = \frac{63}{32} \div \frac{14}{-28}$$

$$H = \frac{63}{32} \times \frac{-28}{14}$$

$$H = \frac{63}{32} \times \frac{-2 \times \cancel{14}}{1 \times \cancel{14}}$$

$$H = \frac{63}{32} \times -2$$

$$H = \frac{63}{16 \times \cancel{2}} \times -1 \times \cancel{2}$$

$$H = \frac{-63}{16}$$

### Corrigé de l'exercice 6

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

$$A = \frac{5}{7} \div \frac{1}{4}$$

$$A = \frac{5}{7} \times 4$$

$$A = \frac{20}{7}$$

$$B = \frac{1}{4} \times \frac{7}{2}$$

$$B = \frac{7}{8}$$

$$C = \frac{-5}{3} \div \frac{1}{8}$$

$$C = \frac{-5}{3} \times 8$$

$$C = \frac{-40}{3}$$

$$D = \frac{-1}{-2} \times \frac{7}{10}$$

$$D = \frac{7}{20}$$

$$E = \frac{81}{40} \times \frac{40}{63}$$

$$E = \frac{9 \times \cancel{9}}{1 \times \cancel{40}} \times \frac{1 \times \cancel{40}}{7 \times \cancel{9}}$$

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

$$F = \frac{45}{16} \div \frac{27}{20}$$

$$F = \frac{45}{16} \times \frac{20}{27}$$

$$F = \frac{5 \times \cancel{9}}{4 \times \cancel{4}} \times \frac{5 \times \cancel{4}}{3 \times \cancel{9}}$$

$$F = \frac{25}{12}$$

$$G = \frac{8}{70} \div \frac{-20}{-70}$$

$$G = \frac{8}{70} \times \frac{70}{20}$$

$$G = \frac{4 \times \cancel{2}}{35 \times \cancel{2}} \times \frac{7 \times \cancel{10}}{2 \times \cancel{10}}$$

$$G = \frac{4}{35} \times \frac{7}{2}$$

$$G = \frac{2 \times \cancel{2}}{5 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{1 \times \cancel{2}}$$

$$G = \frac{2}{5}$$

$$H = \frac{30}{-36} \times \frac{9}{10}$$

$$H = \frac{5 \times \cancel{6}}{-6 \times \cancel{6}} \times \frac{9}{10}$$

$$H = \frac{-5}{6} \times \frac{9}{10}$$

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

$$H = \frac{-3}{4}$$

**Exercice 1**

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

$$\begin{array}{l} A = \frac{5}{4} \times \frac{7}{4} \\ B = \frac{2}{3} \div \frac{3}{4} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-7}{-4} \times \frac{-7}{-2} \\ D = \frac{-1}{2} \div \frac{-9}{5} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{27}{20} \times \frac{5}{27} \\ F = \frac{9}{10} \div \frac{3}{35} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-16}{30} \div \frac{-48}{25} \\ H = \frac{-27}{35} \times \frac{-25}{-27} \end{array} \right.$$

**Exercice 2**

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

$$\begin{array}{l} A = \frac{7}{2} \times \frac{9}{10} \\ B = \frac{9}{5} \div \frac{2}{3} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-4}{3} \div \frac{-5}{7} \\ D = \frac{-1}{2} \times \frac{9}{7} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{7}{10} \times \frac{15}{14} \\ F = \frac{35}{36} \div \frac{5}{72} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-27}{-20} \times \frac{-40}{27} \\ H = \frac{50}{15} \div \frac{-100}{-27} \end{array} \right.$$

**Exercice 3**

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

$$\begin{array}{l} A = \frac{1}{2} \times \frac{1}{10} \\ B = \frac{3}{4} \div \frac{4}{7} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{7}{2} \div \frac{-8}{7} \\ D = \frac{-5}{9} \times \frac{-5}{-2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{56}{45} \times \frac{63}{16} \\ F = \frac{27}{16} \div \frac{9}{16} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{63}{40} \div \frac{27}{-70} \\ H = \frac{-90}{-60} \times \frac{10}{-90} \end{array} \right.$$

**Exercice 4**

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

$$\begin{array}{l} A = \frac{5}{3} \div \frac{6}{7} \\ B = \frac{7}{2} \times \frac{1}{8} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{1}{3} \div \frac{1}{-5} \\ D = \frac{-7}{-4} \times \frac{-1}{-5} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{25}{24} \times \frac{9}{50} \\ F = \frac{28}{45} \div \frac{8}{15} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-27}{32} \times \frac{16}{9} \\ H = \frac{54}{42} \div \frac{54}{-14} \end{array} \right.$$

**Exercice 5**

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

$$\begin{array}{l} A = \frac{9}{10} \times \frac{7}{2} \\ B = \frac{2}{3} \div \frac{1}{2} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{7}{-4} \times \frac{9}{2} \\ D = \frac{-7}{5} \div \frac{1}{7} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{3}{16} \div \frac{27}{16} \\ F = \frac{50}{9} \times \frac{21}{50} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{20}{72} \div \frac{50}{-18} \\ H = \frac{-12}{-14} \times \frac{49}{-36} \end{array} \right.$$

**Exercice 6**

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

$$\begin{array}{l} A = \frac{5}{6} \div \frac{1}{7} \\ B = \frac{5}{3} \times \frac{7}{3} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-1}{5} \times \frac{-7}{4} \\ D = \frac{-9}{2} \div \frac{-7}{3} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{4}{27} \div \frac{20}{27} \\ F = \frac{40}{63} \times \frac{63}{16} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-14}{72} \div \frac{-8}{-90} \\ H = \frac{-54}{-72} \times \frac{-32}{27} \end{array} \right.$$

**Corrigé de l'exercice 1**

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

$$A = \frac{5}{4} \times \frac{7}{4}$$

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

$$B = \frac{2}{3} \div \frac{3}{4}$$

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

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

$$C = \frac{-7}{-4} \times \frac{-7}{-2}$$

$$C = \frac{49}{8}$$

$$D = \frac{-1}{2} \div \frac{-9}{5}$$

$$D = \frac{-1}{2} \times \frac{-5}{9}$$

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

$$E = \frac{27}{20} \times \frac{5}{27}$$

$$E = \frac{1 \times \cancel{27}}{4 \times \cancel{5}} \times \frac{1 \times \cancel{5}}{1 \times \cancel{27}}$$

$$E = \frac{1}{4}$$

$$F = \frac{9}{10} \div \frac{3}{35}$$

$$F = \frac{9}{10} \times \frac{35}{3}$$

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

$$F = \frac{21}{2}$$

$$G = \frac{-16}{30} \div \frac{-48}{25}$$

$$G = \frac{-16}{30} \times \frac{-25}{48}$$

$$G = \frac{-8 \times \cancel{2}}{15 \times \cancel{2}} \times \frac{-25}{48}$$

$$G = \frac{-8}{15} \times \frac{-25}{48}$$

$$G = \frac{-1 \times \cancel{8}}{3 \times \cancel{5}} \times \frac{-5 \times \cancel{5}}{6 \times \cancel{8}}$$

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

$$H = \frac{-27}{35} \times \frac{-25}{-27}$$

$$H = \frac{-1 \times \cancel{27}}{7 \times \cancel{5}} \times \frac{5 \times \cancel{5}}{1 \times \cancel{27}}$$

$$H = \frac{-5}{7}$$

**Corrigé de l'exercice 2**

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

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

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

$$B = \frac{9}{5} \div \frac{2}{3}$$

$$B = \frac{9}{5} \times \frac{3}{2}$$

$$B = \frac{27}{10}$$

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

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

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

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

$$D = \frac{-9}{14}$$

$$E = \frac{7}{10} \times \frac{15}{14}$$

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

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

$$F = \frac{35}{36} \div \frac{5}{72}$$

$$F = \frac{35}{36} \times \frac{72}{5}$$

$$F = \frac{7 \times \cancel{3}}{1 \times \cancel{36}} \times \frac{2 \times \cancel{36}}{1 \times \cancel{3}}$$

$$F = 14$$

$$G = \frac{-27}{-20} \times \frac{-40}{27}$$

$$G = \frac{1 \times \cancel{27}}{1 \times \cancel{20}} \times \frac{-2 \times \cancel{20}}{1 \times \cancel{27}}$$

$$G = -2$$

$$H = \frac{50}{15} \div \frac{-100}{-27}$$

$$H = \frac{50}{15} \times \frac{27}{100}$$

$$H = \frac{10 \times \cancel{3}}{3 \times \cancel{3}} \times \frac{27}{100}$$

$$H = \frac{10}{3} \times \frac{27}{100}$$

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

$$H = \frac{9}{10}$$

**Corrigé de l'exercice 3**

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

$$A = \frac{1}{2} \times \frac{1}{10}$$

$$A = \frac{1}{20}$$

$$B = \frac{3}{4} \div \frac{4}{7}$$

$$B = \frac{3}{4} \times \frac{7}{4}$$

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

$$C = \frac{7}{2} \div \frac{-8}{7}$$

$$C = \frac{7}{2} \times \frac{-7}{8}$$

$$C = \frac{-49}{16}$$

$$D = \frac{-5}{9} \times \frac{-5}{-2}$$

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

$$E = \frac{56}{45} \times \frac{63}{16}$$

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

$$E = \frac{49}{10}$$

$$F = \frac{27}{16} \div \frac{9}{16}$$

$$F = \frac{27}{16} \times \frac{16}{9}$$

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

$$F = 3$$

$$G = \frac{63}{40} \div \frac{27}{-70}$$

$$G = \frac{63}{40} \times \frac{-70}{27}$$

$$G = \frac{7 \times \cancel{9}}{4 \times \cancel{10}} \times \frac{-7 \times \cancel{10}}{3 \times \cancel{9}}$$

$$G = \frac{-49}{12}$$

$$H = \frac{-90}{-60} \times \frac{10}{-90}$$

$$H = \frac{-3 \times \cancel{10}}{-2 \times \cancel{30}} \times \frac{1 \times \cancel{10}}{-9 \times \cancel{10}}$$

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

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

$$H = \frac{-1}{6}$$

### Corrigé de l'exercice 4

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

$$A = \frac{5}{3} \div \frac{6}{7}$$

$$A = \frac{5}{3} \times \frac{7}{6}$$

$$A = \frac{35}{18}$$

$$B = \frac{7}{2} \times \frac{1}{8}$$

$$B = \frac{7}{16}$$

$$C = \frac{1}{3} \div \frac{1}{-5}$$

$$C = \frac{1}{3} \times -5$$

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

$$D = \frac{-7}{-4} \times \frac{-1}{-5}$$

$$D = \frac{7}{20}$$

$$E = \frac{25}{24} \times \frac{9}{50}$$

$$E = \frac{1 \times \cancel{25}}{8 \times \cancel{3}} \times \frac{3 \times \cancel{3}}{2 \times \cancel{25}}$$

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

$$F = \frac{28}{45} \div \frac{8}{15}$$

$$F = \frac{28}{45} \times \frac{15}{8}$$

$$F = \frac{7 \times \cancel{4}}{3 \times \cancel{15}} \times \frac{1 \times \cancel{15}}{2 \times \cancel{4}}$$

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

$$G = \frac{-27}{32} \times \frac{16}{9}$$

$$G = \frac{-3 \times \cancel{9}}{2 \times \cancel{16}} \times \frac{1 \times \cancel{16}}{1 \times \cancel{9}}$$

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

$$H = \frac{54}{42} \div \frac{54}{-14}$$

$$H = \frac{54}{42} \times \frac{-14}{54}$$

$$H = \frac{9 \times \cancel{6}}{7 \times \cancel{6}} \times \frac{-7 \times \cancel{2}}{27 \times \cancel{2}}$$

$$H = \frac{9}{7} \times \frac{-7}{27}$$

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

$$H = \frac{-1}{3}$$

### Corrigé de l'exercice 5

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

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

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

$$B = \frac{2}{3} \div \frac{1}{2}$$

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

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

$$C = \frac{7}{-4} \times \frac{9}{2}$$

$$C = \frac{-63}{8}$$

$$D = \frac{-7}{5} \div \frac{1}{7}$$

$$D = \frac{-7}{5} \times 7$$

$$D = \frac{-49}{5}$$

$$E = \frac{3}{16} \div \frac{27}{16}$$

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

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

$$E = \frac{1}{9}$$

$$F = \frac{50}{9} \times \frac{21}{50}$$

$$F = \frac{1 \times \cancel{50}}{3 \times \cancel{3}} \times \frac{7 \times \cancel{3}}{1 \times \cancel{50}}$$

$$F = \frac{7}{3}$$

$$G = \frac{20}{72} \div \frac{50}{-18}$$

$$G = \frac{20}{72} \times \frac{-18}{50}$$

$$G = \frac{5 \times \cancel{4}}{18 \times \cancel{4}} \times \frac{-9 \times \cancel{2}}{25 \times \cancel{2}}$$

$$G = \frac{5}{18} \times \frac{-9}{25}$$

$$G = \frac{1 \times \cancel{3}}{2 \times \cancel{9}} \times \frac{-1 \times \cancel{9}}{5 \times \cancel{3}}$$

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

$$H = \frac{-12}{-14} \times \frac{49}{-36}$$

$$H = \frac{-6 \times \cancel{2}}{-7 \times \cancel{2}} \times \frac{49}{-36}$$

$$H = \frac{6}{7} \times \frac{-49}{36}$$

$$H = \frac{1 \times \cancel{6}}{1 \times \cancel{7}} \times \frac{-7 \times \cancel{7}}{6 \times \cancel{6}}$$

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

### Corrigé de l'exercice 6

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

$$A = \frac{5}{6} \div \frac{1}{7}$$

$$A = \frac{5}{6} \times 7$$

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

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

$$B = \frac{35}{9}$$

$$C = \frac{-1}{5} \times \frac{-7}{4}$$

$$C = \frac{7}{20}$$

$$D = \frac{-9}{2} \div \frac{-7}{3}$$

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

$$D = \frac{27}{14}$$

$$E = \frac{4}{27} \div \frac{20}{27}$$

$$E = \frac{4}{27} \times \frac{27}{20}$$

$$E = \frac{1 \times \cancel{4}}{1 \times \cancel{27}} \times \frac{1 \times \cancel{27}}{5 \times \cancel{4}}$$

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

$$F = \frac{40}{63} \times \frac{63}{16}$$

$$F = \frac{5 \times \cancel{8}}{1 \times \cancel{63}} \times \frac{1 \times \cancel{63}}{2 \times \cancel{8}}$$

$$F = \frac{5}{2}$$

$$G = \frac{-14}{72} \div \frac{-8}{-90}$$

$$G = \frac{-14}{72} \times \frac{90}{8}$$

$$G = \frac{-7 \times \cancel{2}}{36 \times \cancel{2}} \times \frac{45 \times \cancel{2}}{4 \times \cancel{2}}$$

$$G = \frac{-7}{36} \times \frac{45}{4}$$

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

$$G = \frac{-35}{16}$$

$$H = \frac{-54}{-72} \times \frac{-32}{27}$$

$$H = \frac{-3 \times \cancel{18}}{-4 \times \cancel{18}} \times \frac{-32}{27}$$

$$H = \frac{3}{4} \times \frac{-32}{27}$$

$$H = \frac{1 \times \cancel{3}}{1 \times \cancel{4}} \times \frac{-8 \times \cancel{4}}{9 \times \cancel{3}}$$

$$H = \frac{-8}{9}$$

**Exercice 1**

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

$$\begin{array}{l} A = \frac{7}{8} \div \frac{1}{7} \\ B = \frac{5}{2} \times \frac{5}{8} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-7}{2} \div \frac{2}{-9} \\ D = \frac{-9}{2} \times \frac{-5}{2} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{27}{10} \div \frac{27}{50} \\ F = \frac{5}{54} \times \frac{63}{10} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-18}{-40} \times \frac{5}{18} \\ H = \frac{-2}{45} \div \frac{6}{-27} \end{array} \right.$$

**Exercice 2**

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

$$\begin{array}{l} A = \frac{7}{5} \div \frac{1}{2} \\ B = \frac{7}{4} \times \frac{1}{3} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-1}{2} \div \frac{3}{-5} \\ D = \frac{-1}{-4} \times \frac{-7}{-4} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{32}{81} \div \frac{64}{63} \\ F = \frac{45}{16} \times \frac{40}{63} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{27}{-16} \times \frac{-48}{-21} \\ H = \frac{-81}{10} \div \frac{45}{-10} \end{array} \right.$$

**Exercice 3**

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

$$\begin{array}{l} A = \frac{4}{5} \div \frac{3}{8} \\ B = \frac{9}{2} \times \frac{5}{4} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{9}{5} \div \frac{4}{-7} \\ D = \frac{4}{-3} \times \frac{-2}{-5} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{4}{45} \times \frac{45}{4} \\ F = \frac{16}{45} \div \frac{16}{63} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{27}{14} \div \frac{-90}{-56} \\ H = \frac{-30}{-48} \times \frac{36}{35} \end{array} \right.$$

**Exercice 4**

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

$$\begin{array}{l} A = \frac{2}{7} \div \frac{1}{4} \\ B = \frac{1}{5} \times \frac{1}{2} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{-3}{-7} \times \frac{-9}{-2} \\ D = \frac{4}{3} \div \frac{-3}{4} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{49}{27} \div \frac{70}{81} \\ F = \frac{25}{16} \times \frac{16}{35} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-35}{18} \div \frac{42}{-18} \\ H = \frac{-56}{9} \times \frac{-15}{28} \end{array} \right.$$

**Exercice 5**

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

$$\begin{array}{l} A = \frac{1}{8} \div \frac{1}{5} \\ B = \frac{9}{2} \times \frac{1}{4} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{3}{5} \div \frac{-2}{-9} \\ D = \frac{-4}{-3} \times \frac{-10}{-3} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{28}{27} \div \frac{16}{9} \\ F = \frac{2}{15} \times \frac{9}{8} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{16}{45} \times \frac{-45}{-24} \\ H = \frac{21}{80} \div \frac{-3}{-64} \end{array} \right.$$

**Exercice 6**

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

$$\begin{array}{l} A = \frac{1}{9} \times \frac{5}{2} \\ B = \frac{1}{2} \div \frac{4}{7} \end{array} \quad \left| \quad \begin{array}{l} C = \frac{1}{2} \times \frac{-7}{8} \\ D = \frac{-7}{5} \div \frac{-3}{-8} \end{array} \quad \left| \quad \begin{array}{l} E = \frac{70}{81} \times \frac{45}{28} \\ F = \frac{27}{70} \div \frac{6}{35} \end{array} \quad \left| \quad \begin{array}{l} G = \frac{-80}{12} \div \frac{24}{-21} \\ H = \frac{-48}{-10} \times \frac{-35}{-56} \end{array} \right.$$

**Corrigé de l'exercice 1**

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

$$A = \frac{7}{8} \div \frac{1}{7}$$

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

$$A = \frac{49}{8}$$

$$B = \frac{5}{2} \times \frac{5}{8}$$

$$B = \frac{25}{16}$$

$$C = \frac{-7}{2} \div \frac{2}{-9}$$

$$C = \frac{-7}{2} \times \frac{-9}{2}$$

$$C = \frac{63}{4}$$

$$D = \frac{-9}{2} \times \frac{-5}{2}$$

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

$$E = \frac{27}{10} \div \frac{27}{50}$$

$$E = \frac{27}{10} \times \frac{50}{27}$$

$$E = \frac{1 \times \cancel{27}}{1 \times \cancel{10}} \times \frac{5 \times \cancel{10}}{1 \times \cancel{27}}$$

$$E = 5$$

$$F = \frac{5}{54} \times \frac{63}{10}$$

$$F = \frac{1 \times \cancel{3}}{6 \times \cancel{9}} \times \frac{7 \times \cancel{9}}{2 \times \cancel{5}}$$

$$F = \frac{7}{12}$$

$$G = \frac{-18}{-40} \times \frac{5}{18}$$

$$G = \frac{-\cancel{9} \times \cancel{2}}{-20 \times \cancel{2}} \times \frac{5}{18}$$

$$G = \frac{9}{20} \times \frac{5}{18}$$

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

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

$$H = \frac{-2}{45} \div \frac{6}{-27}$$

$$H = \frac{-2}{45} \times \frac{-27}{6}$$

$$H = \frac{-2}{45} \times \frac{-\cancel{9} \times \cancel{3}}{2 \times \cancel{3}}$$

$$H = \frac{-2}{45} \times \frac{-9}{2}$$

$$H = \frac{-1 \times \cancel{2}}{5 \times \cancel{9}} \times \frac{-1 \times \cancel{9}}{1 \times \cancel{2}}$$

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

**Corrigé de l'exercice 2**

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

$$A = \frac{7}{5} \div \frac{1}{2}$$

$$A = \frac{7}{5} \times 2$$

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

$$B = \frac{7}{4} \times \frac{1}{3}$$

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

$$C = \frac{-1}{2} \div \frac{3}{-5}$$

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

$$C = \frac{5}{6}$$

$$D = \frac{-1}{-4} \times \frac{-7}{-4}$$

$$D = \frac{7}{16}$$

$$E = \frac{32}{81} \div \frac{64}{63}$$

$$E = \frac{32}{81} \times \frac{63}{64}$$

$$E = \frac{1 \times \cancel{32}}{9 \times \cancel{9}} \times \frac{7 \times \cancel{9}}{2 \times \cancel{32}}$$

$$E = \frac{7}{18}$$

$$F = \frac{45}{16} \times \frac{40}{63}$$

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

$$F = \frac{25}{14}$$

$$G = \frac{27}{-16} \times \frac{-48}{-21}$$

$$G = \frac{27}{-16} \times \frac{-16 \times \cancel{3}}{-7 \times \cancel{3}}$$

$$G = \frac{-27}{16} \times \frac{16}{7}$$

$$G = \frac{-27}{1 \times \cancel{16}} \times \frac{1 \times \cancel{16}}{7}$$

$$G = \frac{-27}{7}$$

$$H = \frac{-81}{10} \div \frac{45}{-10}$$

$$H = \frac{-81}{10} \times \frac{-10}{45}$$

$$H = \frac{-81}{10} \times \frac{-\cancel{2} \times \cancel{3}}{9 \times \cancel{3}}$$

$$H = \frac{-81}{10} \times \frac{-2}{9}$$

$$H = \frac{-9 \times \cancel{9}}{5 \times \cancel{2}} \times \frac{-1 \times \cancel{2}}{1 \times \cancel{9}}$$

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

**Corrigé de l'exercice 3**

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

$$A = \frac{4}{5} \div \frac{3}{8}$$

$$A = \frac{4}{5} \times \frac{8}{3}$$

$$A = \frac{32}{15}$$

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

$$B = \frac{45}{8}$$

$$C = \frac{9}{5} \div \frac{4}{-7}$$

$$C = \frac{9}{5} \times \frac{-7}{4}$$

$$C = \frac{-63}{20}$$

$$D = \frac{4}{-3} \times \frac{-2}{-5}$$

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

$$E = \frac{4}{45} \times \frac{45}{4}$$

$$E = \frac{1 \times \cancel{4}}{1 \times \cancel{45}} \times \frac{1 \times \cancel{45}}{1 \times \cancel{4}}$$

$$E = 1$$

$$F = \frac{16}{45} \div \frac{16}{63}$$

$$F = \frac{16}{45} \times \frac{63}{16}$$

$$F = \frac{1 \times \cancel{16}}{5 \times \cancel{9}} \times \frac{7 \times \cancel{9}}{1 \times \cancel{16}}$$

$$F = \frac{7}{5}$$

$$G = \frac{27}{14} \div \frac{-90}{-56}$$

$$G = \frac{27}{14} \times \frac{56}{90}$$

$$G = \frac{27}{14} \times \frac{28 \times \cancel{2}}{45 \times \cancel{2}}$$

$$G = \frac{27}{14} \times \frac{28}{45}$$

$$G = \frac{3 \times \cancel{9}}{1 \times \cancel{14}} \times \frac{2 \times \cancel{14}}{5 \times \cancel{9}}$$

$$G = \frac{6}{5}$$

$$H = \frac{-30}{-48} \times \frac{36}{35}$$

$$H = \frac{-5 \times \cancel{6}}{-8 \times \cancel{6}} \times \frac{36}{35}$$

$$H = \frac{5}{8} \times \frac{36}{35}$$

$$H = \frac{1 \times \cancel{5}}{2 \times \cancel{4}} \times \frac{9 \times \cancel{4}}{7 \times \cancel{5}}$$

$$H = \frac{9}{14}$$

### Corrigé de l'exercice 4

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

$$A = \frac{2}{7} \div \frac{1}{4}$$

$$A = \frac{2}{7} \times 4$$

$$A = \frac{8}{7}$$

$$B = \frac{1}{5} \times \frac{1}{2}$$

$$B = \frac{1}{10}$$

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

$$C = \frac{27}{14}$$

$$D = \frac{4}{3} \div \frac{-3}{4}$$

$$D = \frac{4}{3} \times \frac{-4}{3}$$

$$D = \frac{-16}{9}$$

$$E = \frac{49}{27} \div \frac{70}{81}$$

$$E = \frac{49}{27} \times \frac{81}{70}$$

$$E = \frac{7 \times \cancel{7}}{1 \times \cancel{27}} \times \frac{3 \times \cancel{27}}{10 \times \cancel{7}}$$

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

$$F = \frac{25}{16} \times \frac{16}{35}$$

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

$$F = \frac{5}{7}$$

$$G = \frac{-35}{18} \div \frac{42}{-18}$$

$$G = \frac{-35}{18} \times \frac{-18}{42}$$

$$G = \frac{-35}{18} \times \frac{-3 \times \cancel{6}}{7 \times \cancel{6}}$$

$$G = \frac{-35}{18} \times \frac{-3}{7}$$

$$G = \frac{-5 \times \cancel{7}}{6 \times \cancel{3}} \times \frac{-1 \times \cancel{3}}{1 \times \cancel{7}}$$

$$G = \frac{5}{6}$$

$$H = \frac{-56}{9} \times \frac{-15}{28}$$

$$H = \frac{-2 \times \cancel{28}}{3 \times \cancel{3}} \times \frac{-5 \times \cancel{3}}{1 \times \cancel{28}}$$

$$H = \frac{10}{3}$$

### Corrigé de l'exercice 5

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

$$A = \frac{1}{8} \div \frac{1}{5}$$

$$A = \frac{1}{8} \times 5$$

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

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

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

$$C = \frac{3}{5} \div \frac{-2}{-9}$$

$$C = \frac{3}{5} \times \frac{9}{2}$$

$$C = \frac{27}{10}$$

$$D = \frac{-4}{-3} \times \frac{-10}{-3}$$

$$D = \frac{40}{9}$$

$$E = \frac{28}{27} \div \frac{16}{9}$$

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

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

$$E = \frac{7}{12}$$

$$F = \frac{2}{15} \times \frac{9}{8}$$

$$F = \frac{1 \times \cancel{2}}{5 \times \cancel{3}} \times \frac{3 \times \cancel{3}}{4 \times \cancel{2}}$$

$$F = \frac{3}{20}$$

$G = \frac{16}{45} \times \frac{-45}{-24}$ $G = \frac{16}{45} \times \frac{-15 \times \cancel{3}}{-8 \times \cancel{3}}$ $G = \frac{16}{45} \times \frac{15}{8}$	$G = \frac{2 \times \cancel{8}}{3 \times \cancel{15}} \times \frac{1 \times \cancel{15}}{1 \times \cancel{8}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">G = \frac{2}{3}</math> </div>	$H = \frac{21}{80} \div \frac{-3}{-64}$ $H = \frac{21}{80} \times \frac{64}{3}$ $H = \frac{7 \times \cancel{3}}{5 \times \cancel{16}} \times \frac{4 \times \cancel{16}}{1 \times \cancel{3}}$	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> <math display="block">H = \frac{28}{5}</math> </div>
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### Corrigé de l'exercice 6

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

$A = \frac{1}{9} \times \frac{5}{2}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">A = \frac{5}{18}</math> </div> $B = \frac{1}{2} \div \frac{4}{7}$ $B = \frac{1}{2} \times \frac{7}{4}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">B = \frac{7}{8}</math> </div> $C = \frac{1}{2} \times \frac{-7}{8}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">C = \frac{-7}{16}</math> </div>	$D = \frac{-7}{5} \div \frac{-3}{-8}$ $D = \frac{-7}{5} \times \frac{8}{3}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">D = \frac{-56}{15}</math> </div> $E = \frac{70}{81} \times \frac{45}{28}$ $E = \frac{5 \times \cancel{14}}{9 \times \cancel{9}} \times \frac{5 \times \cancel{9}}{2 \times \cancel{14}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">E = \frac{25}{18}</math> </div> $F = \frac{27}{70} \div \frac{6}{35}$	$F = \frac{27}{70} \times \frac{35}{6}$ $F = \frac{9 \times \cancel{3}}{2 \times \cancel{35}} \times \frac{1 \times \cancel{35}}{2 \times \cancel{3}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">F = \frac{9}{4}</math> </div> $G = \frac{-80}{12} \div \frac{24}{-21}$ $G = \frac{-80}{12} \times \frac{-21}{24}$ $G = \frac{-20 \times \cancel{4}}{3 \times \cancel{4}} \times \frac{-7 \times \cancel{3}}{8 \times \cancel{3}}$ $G = \frac{-20}{3} \times \frac{-7}{8}$	$G = \frac{-5 \times \cancel{4}}{3} \times \frac{-7}{2 \times \cancel{4}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">G = \frac{35}{6}</math> </div> $H = \frac{-48}{-10} \times \frac{-35}{-56}$ $H = \frac{-24 \times \cancel{2}}{-5 \times \cancel{2}} \times \frac{-5 \times \cancel{7}}{-8 \times \cancel{7}}$ $H = \frac{24}{5} \times \frac{5}{8}$ $H = \frac{3 \times \cancel{8}}{1 \times \cancel{8}} \times \frac{1 \times \cancel{8}}{1 \times \cancel{8}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <math display="block">H = 3</math> </div>
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EXERCICE 1 - Calculer en donnant le résultat en *écriture fractionnaire* :

$A = \frac{2}{7} \times \frac{4}{3}$	$B = \frac{4}{7} \times \frac{2}{3}$	$C = 7 \times \frac{4}{11}$	$D = \frac{7}{11} \times 4$	$E = 9 \times \frac{-4}{5}$
$F = \frac{-2}{5} \times \frac{9}{5}$	$G = \frac{-7}{6} \times \frac{5}{-9}$	$H = \frac{7}{-10} \times \frac{-11}{-3}$	$I = \frac{-11}{-4} \times \frac{-9}{-13}$	$J = -\frac{-5}{-7} \times \left(-\frac{15}{-2}\right)$
$K = \frac{-5}{2} \times \frac{2}{-3}$	$L = -\frac{-2}{-3} \times \left(-\frac{-3}{-7}\right)$	$M = 4 \times \frac{5}{-4}$	$N = \frac{-4}{15} \times (-5)$	$O = -12 \times \left(-\frac{7}{-6}\right)$
$P = \frac{-2}{-3} \times \frac{5}{-4}$	$Q = \frac{5}{-7} \times \frac{-3}{-15}$	$R = \frac{-5}{-7} \times \frac{14}{-15}$	$S = \frac{6}{-10} \times \frac{-1}{-3}$	$T = -\frac{-28}{-21} \times \left(-\frac{-6}{-4}\right)$

EXERCICE 2 - Calculer en prenant le soin de **simplifier avant de calculer** :

$X = \frac{-4}{5} \times \frac{5}{-3} \times \frac{2}{7}$ $X = \frac{-4}{-3} \times \frac{2}{7}$ $X = \frac{8}{21}$	$Y = \frac{-6}{5} \times \frac{-7}{2} \times \frac{3}{-11}$ $Y = \frac{-3 \times (-7) \times 3}{5 \times (-11)}$ $Y = \frac{63}{55}$	$A = \frac{2}{5} \times \frac{5}{3}$	$B = \frac{3}{7} \times \frac{4}{-3}$	$C = \frac{6}{-5} \times \frac{-7}{-6}$
$D = \frac{9}{-11} \times \frac{-7}{18}$	$E = \frac{-9}{4} \times \frac{-2}{5}$	$F = \frac{3}{-4} \times \frac{8}{-7}$	$G = \frac{-4}{5} \times \frac{-7}{6}$	$H = \frac{7}{-10} \times \frac{-15}{-2}$
$I = \frac{-21}{-2} \times \frac{-5}{-28}$	$J = \frac{-2}{35} \times \frac{-25}{6}$	$K = \frac{21}{-8} \times \frac{-22}{15}$	$L = -\frac{-6}{-15} \times \frac{-20}{-8}$	$M = \frac{2}{-3} \times \frac{-11}{5} \times \frac{-5}{7}$
$N = \frac{-3}{-4} \times \frac{-5}{-2} \times \frac{4}{3}$	$O = \frac{-2}{-11} \times \frac{-5}{-6} \times \frac{-3}{35}$	$P = \frac{-4}{15} \times \left(-\frac{-21}{-6}\right) \times \frac{-10}{14}$	$Q = \frac{8}{25} \times \frac{77}{6} \times \left(-\frac{20}{88}\right)$	$R = \frac{23}{51} \times \frac{-13}{-19} \times \frac{-7}{9} \times \frac{0}{34}$

LA PROVIDENCE – MONTPELLIER

CORRIGE – M. QUET

## EXERCICE 1

$A = \frac{2}{7} \times \frac{4}{3}$ $A = \frac{2 \times 4}{7 \times 3}$ $A = \frac{8}{21}$	$B = \frac{4}{7} \times \frac{2}{3}$ $B = \frac{4 \times 2}{7 \times 3}$ $B = \frac{8}{21}$	$C = \frac{7}{1} \times \frac{4}{11}$ $C = \frac{7 \times 4}{1 \times 11}$ $C = \frac{28}{11}$	$D = \frac{7}{11} \times \frac{4}{1}$ $D = \frac{7 \times 4}{11 \times 1}$ $D = \frac{28}{11}$	$E = \frac{9}{1} \times \frac{-4}{5}$ $E = -\frac{9 \times 4}{1 \times 5}$ $E = -\frac{36}{5}$
$F = \frac{-2}{5} \times \frac{9}{5}$ $F = -\frac{2 \times 9}{5 \times 5}$ $F = -\frac{18}{25}$	$G = \frac{-7}{6} \times \frac{5}{-9}$ $G = +\frac{7 \times 5}{6 \times 9}$ $G = \frac{35}{54}$	$H = \frac{7}{-10} \times \frac{-11}{-3}$ $H = -\frac{7 \times 11}{10 \times 3}$ $H = -\frac{77}{30}$	$I = \frac{-11}{-4} \times \frac{-9}{-13}$ $I = \frac{11}{4} \times \frac{9}{13}$ $I = \frac{11 \times 9}{4 \times 13}$ $I = \frac{99}{52}$	$J = -\frac{5}{-7} \times \left(-\frac{15}{-2}\right)$ $J = -\frac{5}{7} \times \left(+\frac{15}{2}\right)$ $J = -\frac{5 \times 15}{7 \times 2}$ $J = -\frac{75}{14}$
$K = \frac{-5}{2} \times \frac{2}{-3}$ $K = +\frac{5 \times \boxed{2}}{\boxed{2} \times 3}$ $K = \frac{5}{3}$	$L = -\frac{-2}{-3} \times \left(-\frac{-3}{-7}\right)$ $L = -\frac{2}{3} \times \left(-\frac{3}{7}\right)$ $L = +\frac{2 \times \boxed{3}}{\boxed{3} \times 7}$ $L = \frac{2}{7}$	$M = 4 \times \frac{5}{-4}$ $M = -\frac{4}{1} \times \frac{5}{4}$ $M = -\frac{\boxed{4} \times 5}{1 \times \boxed{4}}$ $M = -5$	$N = \frac{-4}{15} \times (-5)$ $N = +\frac{4}{15} \times \frac{5}{1}$ $N = \frac{4 \times 5}{15 \times 1}$ $N = \frac{4 \times \boxed{5}}{3 \times \boxed{5} \times 1}$ $N = \frac{4}{3}$	$O = -12 \times \left(-\frac{7}{-6}\right)$ $O = -\frac{12}{1} \times \frac{7}{6}$ $O = -\frac{12 \times 7}{1 \times 6}$ $O = -\frac{\boxed{6} \times 2 \times 7}{1 \times \boxed{6}}$ $O = -14$
$P = \frac{-2}{-3} \times \frac{5}{-4}$ $P = \frac{2}{3} \times \left(-\frac{5}{4}\right)$ $P = -\frac{2 \times 5}{3 \times 4}$ $P = -\frac{\boxed{2} \times 5}{3 \times 2 \times \boxed{2}}$ $P = -\frac{5}{6}$	$Q = \frac{5}{-7} \times \frac{-3}{-15}$ $Q = -\frac{5}{7} \times \frac{3}{15}$ $Q = -\frac{5 \times 3}{7 \times 15}$ $Q = -\frac{\boxed{5} \times \boxed{3}}{7 \times \boxed{3} \times \boxed{5}}$ $Q = -\frac{1}{7}$	$R = \frac{-5}{-7} \times \frac{14}{-15}$ $R = \frac{5}{7} \times \left(-\frac{14}{15}\right)$ $R = -\frac{5 \times 14}{7 \times 15}$ $R = -\frac{\boxed{5} \times \boxed{7} \times 2}{\boxed{7} \times \boxed{5} \times 3}$ $R = -\frac{2}{3}$	$S = \frac{6}{-10} \times \frac{-1}{-3}$ $S = -\frac{6}{10} \times \frac{1}{3}$ $S = -\frac{6 \times 1}{10 \times 3}$ $S = -\frac{\boxed{3} \times \boxed{2} \times 1}{5 \times \boxed{2} \times \boxed{3}}$ $S = -\frac{1}{5}$	$T = -\frac{-28}{-21} \times \left(-\frac{-6}{-4}\right)$ $T = -\frac{28}{21} \times \left(-\frac{6}{4}\right)$ $T = +\frac{28 \times 6}{21 \times 4}$ $T = \frac{\boxed{7} \times 4 \times \boxed{3} \times \boxed{2}}{\boxed{7} \times \boxed{3} \times \boxed{2} \times 2}$ $T = 2$

## EXERCICE 2

$X = \frac{-4}{5} \times \frac{5}{-3} \times \frac{2}{7}$ $X = \frac{-4}{-3} \times \frac{2}{7}$ $X = \frac{8}{21}$	$Y = \frac{-6}{5} \times \frac{-7}{2} \times \frac{3}{-11}$ $Y = \frac{-3 \times (-7) \times 3}{5 \times (-11)}$ $Y = \frac{63}{55}$	$A = \frac{2}{5} \times \frac{5}{3}$ $A = \frac{2 \times \boxed{5}}{\boxed{5} \times 3}$ $A = \frac{2}{3}$	$B = \frac{3}{7} \times \frac{4}{-3}$ $B = -\frac{\boxed{3} \times 4}{7 \times \boxed{3}}$ $B = -\frac{4}{7}$	$C = \frac{6}{-5} \times \frac{-7}{-6}$ $C = -\frac{\boxed{6} \times 7}{5 \times \boxed{6}}$ $C = -\frac{7}{5}$
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## LA PROVIDENCE – MONTPELLIER

$D = \frac{9}{-11} \times \frac{-7}{18}$ $D = + \frac{9 \times 7}{11 \times 18}$ $D = \frac{\boxed{9} \times 7}{11 \times 2 \times \boxed{9}}$ $D = \frac{7}{22}$	$E = \frac{-9}{4} \times \frac{-2}{5}$ $E = + \frac{9 \times 2}{4 \times 5}$ $E = \frac{9 \times \boxed{2}}{2 \times \boxed{2} \times 5}$ $E = \frac{9}{10}$	$F = \frac{3}{-4} \times \frac{8}{-7}$ $F = + \frac{3 \times 8}{4 \times 7}$ $F = \frac{3 \times \boxed{4} \times 2}{\boxed{4} \times 7}$ $F = \frac{6}{7}$	$G = \frac{-4}{5} \times \frac{-7}{6}$ $G = + \frac{4 \times 7}{5 \times 6}$ $G = \frac{2 \times \boxed{2} \times 7}{5 \times 3 \times \boxed{2}}$ $G = \frac{14}{15}$	$H = \frac{7}{-10} \times \frac{-15}{-2}$ $H = - \frac{7 \times 15}{10 \times 2}$ $H = - \frac{7 \times \boxed{5} \times 3}{\boxed{5} \times 2 \times 2}$ $H = - \frac{21}{4}$
$I = \frac{-21}{-2} \times \frac{-5}{-28}$ $I = + \frac{21 \times 5}{2 \times 28}$ $I = \frac{\boxed{7} \times 3 \times 5}{2 \times \boxed{7} \times 4}$ $I = \frac{15}{8}$	$J = \frac{-2}{35} \times \frac{-25}{6}$ $J = + \frac{2 \times 25}{35 \times 6}$ $J = \frac{\boxed{2} \times 5 \times \boxed{5}}{7 \times \boxed{5} \times \boxed{2} \times 3}$ $J = \frac{5}{21}$	$K = \frac{21}{-8} \times \frac{-22}{15}$ $K = \frac{21 \times 22}{8 \times 15}$ $K = \frac{\boxed{3} \times 7 \times \boxed{2} \times 11}{\boxed{2} \times 4 \times \boxed{3} \times 5}$ $K = \frac{77}{20}$	$L = - \frac{-6}{-15} \times \frac{-20}{-8}$ $L = - \frac{6 \times 20}{15 \times 8}$ $L = - \frac{\boxed{2} \times \boxed{3} \times \boxed{5} \times \boxed{4}}{\boxed{3} \times \boxed{5} \times \boxed{2} \times \boxed{4}}$ $L = -1$	$M = \frac{2}{-3} \times \frac{-11}{5} \times \frac{-5}{7}$ $M = - \frac{2 \times 11 \times \boxed{5}}{3 \times \boxed{5} \times 7}$ $M = - \frac{22}{21}$
$N = \frac{-3}{-4} \times \frac{-5}{-2} \times \frac{4}{3}$ $N = + \frac{\boxed{3} \times 5 \times \boxed{4}}{\boxed{4} \times 2 \times \boxed{3}}$ $N = \frac{5}{2}$	$O = \frac{-2}{-11} \times \frac{-5}{-6} \times \frac{-3}{35}$ $O = - \frac{2 \times 5 \times 3}{11 \times 6 \times 35}$ $O = - \frac{\boxed{2} \times \boxed{5} \times \boxed{3}}{11 \times \boxed{2} \times \boxed{3} \times 7 \times \boxed{5}}$ $O = - \frac{1}{77}$	$P = \frac{-4}{15} \times \left( \frac{-21}{-6} \right) \times \frac{-10}{14}$ $P = - \frac{4 \times 21 \times 10}{15 \times 6 \times 14}$ $P = - \frac{2 \times \boxed{2} \times \boxed{7} \times \boxed{3} \times \boxed{5} \times \boxed{2}}{\boxed{3} \times \boxed{5} \times \boxed{2} \times 3 \times \boxed{2} \times \boxed{7}}$ $P = - \frac{2}{3}$	$Q = \frac{8}{25} \times \frac{77}{6} \times \left( - \frac{20}{88} \right)$ $Q = - \frac{8 \times 77 \times 20}{25 \times 6 \times 88}$ $Q = - \frac{\boxed{8} \times \boxed{11} \times 7 \times \boxed{5} \times 4}{\boxed{5} \times 5 \times 6 \times \boxed{8} \times \boxed{11}}$ $Q = - \frac{7 \times 2 \times \boxed{2}}{5 \times 3 \times \boxed{2}}$ $Q = - \frac{14}{15}$	$R = \frac{23}{51} \times \frac{-13}{-19} \times \frac{-7}{9} \times \frac{0}{34}$ $R = - \frac{23 \times 13 \times 7 \times \textcolor{red}{0}}{51 \times 19 \times 9 \times 34}$ $R = 0$