

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 :

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Corrigé de l'exercice 6

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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