

1 Calcule et donne le résultat sous la forme d'une fraction la plus simple possible.

$$A = \frac{5}{7} \div \frac{15}{2}$$

$$A = \frac{5}{7} \times \frac{2}{15}$$

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

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

$$B = \frac{4}{3} \div \frac{7}{9}$$

$$B = \frac{4}{3} \times \frac{9}{7}$$

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

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

$$C = \frac{12}{5} \div \frac{6}{7}$$

$$C = \frac{12}{5} \times \frac{7}{6}$$

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

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

$$D = \frac{9}{2} \div \frac{3}{4}$$

$$D = \frac{9}{2} \times \frac{4}{3}$$

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

$$D = 6$$

$$E = \frac{3}{5} \div \frac{-9}{25}$$

$$E = -\frac{3}{5} \times \frac{25}{9}$$

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

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

$$F = \frac{7}{16} \div \frac{5}{4}$$

$$F = \frac{7}{16} \times \frac{4}{5}$$

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

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

2 Calcule et donne le résultat sous la forme d'une fraction la plus simple possible.

$$G = \frac{10}{7} \div \frac{30}{14}$$

$$G = \frac{10}{7} \times \frac{14}{30}$$

$$G = \frac{10 \times 2 \times 7}{7 \times 3 \times 10}$$

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

$$H = \frac{25}{8} \div \frac{15}{4}$$

$$H = \frac{25}{8} \times \frac{4}{15}$$

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

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

$$J = \frac{-2}{3} \div \frac{4}{27}$$

$$J = -\frac{2}{3} \times \frac{27}{4}$$

$$J = -\frac{2 \times 3 \times 9}{3 \times 2 \times 2}$$

$$J = -\frac{9}{2}$$

$$K = \frac{24}{35} \div \frac{18}{49}$$

$$K = \frac{24}{35} \times \frac{49}{18}$$

$$K = \frac{6 \times 4 \times 7 \times 7}{7 \times 5 \times 3 \times 6}$$

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

$$L = \frac{33}{16} \div \frac{99}{36}$$

$$L = \frac{33}{16} \times \frac{36}{99}$$

$$L = \frac{33 \times 4 \times 9}{4 \times 4 \times 3 \times 33}$$

$$L = \frac{9}{12} = \frac{3}{4}$$

$$M = \frac{27}{17} \div \frac{21}{34}$$

$$M = \frac{27}{17} \times \frac{34}{21}$$

$$M = \frac{3 \times 9 \times 17 \times 2}{17 \times 7 \times 3}$$

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

3 Calcule et donne le résultat sous la forme la plus simple possible.

$$N = \frac{\frac{7}{2}}{5} \div \frac{5}{2}$$

$$N = \left(\frac{7}{2} \times \frac{1}{5}\right) \div \frac{5}{2}$$

$$N = \left(\frac{7}{2} \times \frac{1}{5}\right) \times \frac{2}{5}$$

$$N = \frac{7 \times 1 \times 2}{2 \times 5 \times 5}$$

$$N = \frac{7}{25}$$

$$P = \frac{\frac{3}{4}}{9} \div \frac{\frac{1}{2}}{6}$$

$$P = \left(3 \times \frac{9}{4}\right) \div \left(\frac{1}{2} \times \frac{1}{6}\right)$$

$$P = \frac{3 \times 9}{4} \div \frac{1 \times 1}{2 \times 6}$$

$$P = \frac{27}{4} \div \frac{1}{12} = \frac{27}{4} \times \frac{12}{1}$$

$$P = \frac{27 \times 3 \times 4}{4 \times 1} = 81$$

4 Calcule astucieusement les nombres suivants.

$$Q = \frac{\left(1 - \frac{1}{6}\right)\left(1 - \frac{2}{6}\right)\left(1 - \frac{3}{6}\right)\left(1 - \frac{4}{6}\right)\left(1 - \frac{5}{6}\right)\left(1 - \frac{6}{6}\right)}{1 - \frac{1}{6}}$$

$$Q = \frac{\left(1 - \frac{1}{6}\right)\left(1 - \frac{2}{6}\right)\left(1 - \frac{3}{6}\right)\left(1 - \frac{4}{6}\right)\left(1 - \frac{5}{6}\right)(1 - 1)}{1 - \frac{1}{6}}$$

$$Q = 0$$

$$R = \frac{\frac{1}{2} + \frac{3}{4} + \frac{9}{10}}{\frac{17}{34} + \frac{51}{68} + \frac{153}{170}}$$

$$M = \frac{\frac{1}{2} + \frac{3}{4} + \frac{9}{10}}{\frac{1}{2} + \frac{3}{4} + \frac{9}{10}}$$

$$M = 1$$

