

Tous les résultats sous forme de fraction irréductible ou le cas échéant sous forme de nombre entier.

E01 Simplifier chacune des fractions :

$$A = \frac{45}{30} =$$

$$B = \frac{32}{48} =$$

$$C = \frac{26 \times 14}{21 \times 13} =$$

E02 Calculer :

$$D = 60 : 30 : 4 =$$

$$E = 72 \times 0,5 - 0,5 =$$

$$F = 0,25 \times 128 =$$

$$G = 10 - 2 \times (5 - 1) =$$

$$H = 0,15 + 13 + 5,85 =$$

$$I = 5^2 - (3 + 1)^2 =$$

$$J = 137 \times \frac{31}{137} =$$

$$K = \frac{5}{12} \times 24 =$$

$$L = \frac{8}{13} + \frac{2}{13} =$$

$$M = \frac{15}{17} - \frac{3}{17} =$$

$$N = \frac{7}{4} - \frac{3}{8} =$$

$$P = \frac{7}{15} + \frac{1}{10} =$$

$$Q = \frac{3}{5} + 6 =$$

$$W = \frac{\frac{2}{5}}{\frac{3}{7}} =$$

$$R = 1,7 + \frac{3}{5} =$$

$$S = \frac{7}{12} + \frac{2}{15} =$$

$$X = \frac{1 + \frac{1}{3}}{1 - \frac{1}{6}} =$$

$$T = \frac{6}{5} \times \frac{1}{4} =$$

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

$$Y = \left(1 + \frac{1}{2} + \frac{1}{3}\right)^2 =$$

$$V = 7 \times \frac{5}{12} =$$

Corrigé

E01 Simplifier chacune des fractions :

$$A = \frac{45}{30} = \frac{15 \times 3}{15 \times 2} = \frac{3}{2}$$

$$B = \frac{32}{48} = \frac{16 \times 2}{16 \times 3} = \frac{2}{3}$$

$$C = \frac{26 \times 14}{21 \times 13} = \frac{\boxed{13} \times 2 \times \boxed{7} \times 2}{\boxed{7} \times 3 \times \boxed{13}} = \frac{4}{3}$$

E02 Calculer :

$$D = 60 : 30 : 4 = 2 : 4 = \frac{1}{2}$$

$$E = 72 \times 0,5 - 0,5 = 36 - 0,5 = 35,5 = \frac{71}{2}$$

$$F = 0,25 \times 128 = 32$$

$$G = 10 - 2 \times (5 - 1) = 10 - 2 \times 4 = 10 - 8 = 2$$

$$H = 0,15 + 13 + 5,85 = 0,15 + 5,85 + 13 = 6 + 13 = 19$$

$$I = 5^2 - (3 + 1)^2 = 5^2 - 4^2 = 25 - 16 = 9$$

$$J = 137 \times \frac{31}{137} = 31$$

$$K = \frac{5}{12} \times 24 = \frac{5}{12} \times 12 \times 2 = 5 \times 2 = 10$$

$$L = \frac{8}{13} + \frac{2}{13} = \frac{8+2}{13} = \frac{10}{13}$$

$$M = \frac{15}{17} - \frac{3}{17} = \frac{15-3}{17} = \frac{12}{17}$$

$$N = \frac{7}{4} - \frac{3}{8} = \frac{7 \times 2}{4 \times 2} - \frac{3}{8} = \frac{14}{8} - \frac{3}{8} = \frac{14-3}{8} = \frac{11}{8}$$

$$P = \frac{7}{15} + \frac{1}{10} = \frac{7 \times 2}{15 \times 2} + \frac{1 \times 3}{10 \times 3} = \frac{14}{30} + \frac{3}{30} = \frac{14+3}{30} = \frac{17}{30}$$

$$Q = \frac{3}{5} + 6 = \frac{3}{5} + \frac{6}{1} = \frac{3}{5} + \frac{6 \times 5}{1 \times 5} = \frac{3}{5} + \frac{30}{5} = \frac{3+30}{5} = \frac{33}{5}$$

$$R = 1,7 + \frac{3}{5} = \frac{17}{10} + \frac{3}{5} = \frac{17}{10} + \frac{3 \times 2}{5 \times 2} = \frac{17}{10} + \frac{6}{10} = \frac{17+6}{10} = \frac{23}{10}$$

$$S = \frac{7}{12} + \frac{2}{15} = \frac{7 \times 5}{12 \times 5} + \frac{2 \times 4}{15 \times 4} = \frac{35}{60} + \frac{8}{60} = \frac{35+8}{60} = \frac{43}{60}$$

$$T = \frac{6}{5} \times \frac{1}{4} = \frac{6 \times 1}{5 \times 4} = \frac{\boxed{2} \times 3 \times 1}{5 \times \boxed{2} \times 2} = \frac{3}{10}$$

$$U = \frac{3}{4} \times \frac{5}{4} = \frac{3 \times 5}{4 \times 4} = \frac{15}{16}$$

$$V = 7 \times \frac{5}{12} = \frac{7}{1} \times \frac{5}{12} = \frac{7 \times 5}{1 \times 12} = \frac{35}{12}$$

$$W = \frac{2}{\frac{5}{3}} = \frac{2}{5} \times \frac{7}{3} = \frac{2 \times 7}{5 \times 3} = \frac{14}{15}$$

$$X = \frac{1 + \frac{1}{3}}{1 - \frac{1}{6}} = \frac{\frac{3}{3} + \frac{1}{3}}{\frac{6}{6} - \frac{1}{6}} = \frac{\frac{3+1}{3}}{\frac{6-1}{6}} = \frac{\frac{4}{3}}{\frac{5}{6}} = \frac{4}{3} \times \frac{6}{5} = \frac{4 \times 6}{3 \times 5} = \frac{4 \times \boxed{3} \times 2}{\boxed{3} \times 5} = \frac{8}{5}$$

$$Y = \left(1 + \frac{1}{2} + \frac{1}{3}\right)^2 = \left(\frac{6}{6} + \frac{1 \times 3}{2 \times 3} + \frac{1 \times 2}{3 \times 2}\right)^2 = \left(\frac{6}{6} + \frac{3}{6} + \frac{2}{6}\right)^2 = \left(\frac{6+3+2}{6}\right)^2 = \left(\frac{11}{6}\right)^2 = \frac{11}{6} \times \frac{11}{6} = \frac{11 \times 11}{6 \times 6} = \frac{121}{36}$$