

Groupe des Instituts Excel

Corrections

Corrigé de l'exercice 1

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

$$A = \frac{2}{15} + \frac{1}{3}$$

$$A = \frac{2}{15} + \frac{1 \times 5}{3 \times 5}$$

$$A = \frac{7}{15}$$

$$B = \frac{9}{8} + \frac{7}{32}$$

$$B = \frac{9 \times 4}{8 \times 4} + \frac{7}{32}$$

$$B = \frac{43}{32}$$

$$C = \frac{7}{8} + \frac{5}{32}$$

$$C = \frac{7 \times 4}{8 \times 4} + \frac{5}{32}$$

$$C = \frac{33}{32}$$

$$D = \frac{3}{35} + \frac{6}{5}$$

$$D = \frac{3}{35} + \frac{6 \times 7}{5 \times 7}$$

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

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

$$E = \frac{7}{12} + \frac{10}{3}$$

$$E = \frac{7}{12} + \frac{10 \times 4}{3 \times 4}$$

$$E = \frac{47}{12}$$

$$F = \frac{5}{7} + \frac{8}{35}$$

$$F = \frac{5 \times 5}{7 \times 5} + \frac{8}{35}$$

$$F = \frac{33}{35}$$

$$G = \frac{9}{5} - \frac{6}{35}$$

$$G = \frac{9 \times 7}{5 \times 7} - \frac{6}{35}$$

$$G = \frac{57}{35}$$

$$H = \frac{8}{5} - \frac{9}{25}$$

$$H = \frac{8 \times 5}{5 \times 5} - \frac{9}{25}$$

$$H = \frac{31}{25}$$

Corrigé de l'exercice 2

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

$$A = \frac{3}{7} - \frac{4}{63}$$

$$A = \frac{3 \times 9}{7 \times 9} - \frac{4}{63}$$

$$A = \frac{23}{63}$$

$$B = \frac{10}{3} - \frac{2}{15}$$

$$B = \frac{10 \times 5}{3 \times 5} - \frac{2}{15}$$

$$B = \frac{16 \times 3}{5 \times 3}$$

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

$$C = \frac{4}{35} + \frac{1}{5}$$

$$C = \frac{4}{35} + \frac{1 \times 7}{5 \times 7}$$

$$C = \frac{11}{35}$$

$$D = \frac{7}{16} + \frac{3}{4}$$

$$D = \frac{7}{16} + \frac{3 \times 4}{4 \times 4}$$

$$D = \frac{19}{16}$$

$$E = \frac{8}{3} - \frac{2}{9}$$

$$E = \frac{8 \times 3}{3 \times 3} - \frac{2}{9}$$

$$E = \frac{22}{9}$$

$$F = \frac{1}{2} - \frac{3}{10}$$

$$F = \frac{1 \times 5}{2 \times 5} - \frac{3}{10}$$

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

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

$$G = \frac{9}{7} + \frac{10}{21}$$

$$G = \frac{9 \times 3}{7 \times 3} + \frac{10}{21}$$

$$G = \frac{37}{21}$$

$$H = \frac{9}{10} - \frac{3}{5}$$

$$H = \frac{9}{10} - \frac{3 \times 2}{5 \times 2}$$

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

Corrigé de l'exercice 3

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

$$A = \frac{7}{10} - \frac{7}{20}$$

$$A = \frac{7 \times 2}{10 \times 2} - \frac{7}{20}$$

$$C = \frac{8 \times 5}{9 \times 5} - \frac{2}{45}$$

$$C = \frac{38}{45}$$

$$D = \frac{5}{4} + \frac{3}{40}$$

$$D = \frac{5 \times 10}{4 \times 10} + \frac{3}{40}$$

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

$$B = \frac{9}{10} - \frac{3}{50}$$

$$D = \frac{53}{40}$$

$$E = \frac{9}{4} - \frac{7}{8}$$

$$E = \frac{9 \times 2}{4 \times 2} - \frac{7}{8}$$

$$E = \frac{11}{8}$$

$$F = \frac{3}{4} - \frac{7}{36}$$

$$B = \frac{9 \times 5}{10 \times 5} - \frac{3}{50}$$

$$B = \frac{21 \times 2}{25 \times 2}$$

$$F = \frac{3 \times 9}{4 \times 9} - \frac{7}{36}$$

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

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

$$G = \frac{8}{35} + \frac{8}{7}$$

$$G = \frac{8}{35} + \frac{8 \times 5}{7 \times 5}$$

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

$$C = \frac{8}{9} - \frac{2}{45}$$

$$G = \frac{48}{35}$$

$$H = \frac{7}{2} - \frac{5}{4}$$

$$H = \frac{7 \times 2}{2 \times 2} - \frac{5}{4}$$

$$H = \frac{9}{4}$$

Corrigé de l'exercice 4

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

$$A = \frac{1}{8} + \frac{5}{24}$$

$$A = \frac{1 \times 3}{8 \times 3} + \frac{5}{24}$$

$$A = \frac{1 \times 8}{3 \times 8}$$

$$A = \frac{1}{3}$$

$$B = \frac{7}{3} - \frac{7}{24}$$

$$B = \frac{7 \times 8}{3 \times 8} - \frac{7}{24}$$

$$B = \frac{49}{24}$$

$$C = \frac{9}{40} + \frac{1}{4}$$

$$C = \frac{9}{40} + \frac{1 \times 10}{4 \times 10}$$

$$C = \frac{19}{40}$$

$$D = \frac{9}{16} + \frac{3}{8}$$

$$D = \frac{9}{16} + \frac{3 \times 2}{8 \times 2}$$

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

$$E = \frac{9}{4} + \frac{3}{2}$$

$$E = \frac{9}{4} + \frac{3 \times 2}{2 \times 2}$$

$$E = \frac{15}{4}$$

$$F = \frac{3}{4} - \frac{1}{2}$$

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

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

$$G = \frac{9}{7} + \frac{5}{63}$$

$$G = \frac{9 \times 9}{7 \times 9} + \frac{5}{63}$$

$$G = \frac{86}{63}$$

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

$$H = \frac{1 \times 7}{2 \times 7} - \frac{3}{14}$$

$$H = \frac{2 \times 2}{7 \times 2}$$

$$H = \frac{2}{7}$$

Corrigé de l'exercice 5

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

$$A = \frac{7}{3} - \frac{5}{24}$$
$$A = \frac{7 \times 8}{3 \times 8} - \frac{5}{24}$$

$$A = \frac{17 \times 3}{8 \times 3}$$

$$A = \frac{17}{8}$$

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

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

$$B = \frac{9}{4}$$

$$C = \frac{7}{18} + \frac{7}{6}$$

$$C = \frac{7}{18} + \frac{7 \times 3}{6 \times 3}$$

$$C = \frac{14 \times 2}{9 \times 2}$$

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

$$D = \frac{4}{81} + \frac{5}{9}$$

$$D = \frac{4}{81} + \frac{5 \times 9}{9 \times 9}$$

$$D = \frac{49}{81}$$

$$E = \frac{5}{14} + \frac{9}{7}$$

$$E = \frac{5}{14} + \frac{9 \times 2}{7 \times 2}$$

$$E = \frac{23}{14}$$

$$F = \frac{3}{2} + \frac{3}{10}$$

$$F = \frac{3 \times 5}{2 \times 5} + \frac{3}{10}$$

$$F = \frac{9 \times 2}{5 \times 2}$$

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

$$G = \frac{1}{5} - \frac{7}{50}$$

$$G = \frac{1 \times 10}{5 \times 10} - \frac{7}{50}$$

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

$$H = \frac{3}{4} - \frac{3}{8}$$

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

$$H = \frac{3}{8}$$

Corrigé de l'exercice 6

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

$$A = \frac{10}{3} + \frac{8}{21}$$

$$A = \frac{10 \times 7}{3 \times 7} + \frac{8}{21}$$

$$A = \frac{26 \times 3}{7 \times 3}$$

$$A = \frac{26}{7}$$

$$B = \frac{9}{2} + \frac{7}{20}$$

$$B = \frac{9 \times 10}{2 \times 10} + \frac{7}{20}$$

$$B = \frac{97}{20}$$

$$C = \frac{3}{10} + \frac{7}{90}$$

$$C = \frac{3 \times 9}{10 \times 9} + \frac{7}{90}$$

$$C = \frac{17 \times 2}{45 \times 2}$$

$$C = \frac{17}{45}$$

$$D = \frac{4}{9} - \frac{7}{36}$$

$$D = \frac{4 \times 4}{9 \times 4} - \frac{7}{36}$$

$$D = \frac{1 \times 9}{4 \times 9}$$

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

$$E = \frac{1}{8} + \frac{3}{64}$$

$$E = \frac{1 \times 8}{8 \times 8} + \frac{3}{64}$$

$$E = \frac{11}{64}$$

$$F = \frac{9}{5} - \frac{9}{20}$$

$$F = \frac{9 \times 4}{5 \times 4} - \frac{9}{20}$$

$$F = \frac{27}{20}$$

$$G = \frac{7}{2} + \frac{9}{16}$$

$$G = \frac{7 \times 8}{2 \times 8} + \frac{9}{16}$$

$$G = \frac{65}{16}$$

$$H = \frac{7}{16} + \frac{1}{8}$$

$$H = \frac{7}{16} + \frac{1 \times 2}{8 \times 2}$$

$$H = \frac{9}{16}$$