

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 :

$$A = \frac{4}{9} - \frac{7}{27}$$

$$A = \frac{4 \times 3}{9 \times 3} - \frac{7}{27}$$

$$A = \frac{5}{27}$$

$$B = \frac{6}{5} - \frac{8}{45}$$

$$B = \frac{6 \times 9}{5 \times 9} - \frac{8}{45}$$

$$B = \frac{46}{45}$$

$$C = \frac{6}{5} - \frac{7}{30}$$

$$C = \frac{6 \times 6}{5 \times 6} - \frac{7}{30}$$

$$C = \frac{29}{30}$$

$$D = \frac{8}{7} - \frac{4}{35}$$

$$D = \frac{8 \times 5}{7 \times 5} - \frac{4}{35}$$

$$D = \frac{36}{35}$$

$$E = \frac{10}{9} - \frac{5}{72}$$

$$E = \frac{10 \times 8}{9 \times 8} - \frac{5}{72}$$

$$E = \frac{25 \times 3}{24 \times 3}$$

$$E = \frac{25}{24}$$

$$F = \frac{9}{14} + \frac{3}{2}$$

$$F = \frac{9}{14} + \frac{3 \times 7}{2 \times 7}$$

$$F = \frac{15 \times 2}{7 \times 2}$$

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

$$G = \frac{10}{7} - \frac{4}{35}$$

$$G = \frac{10 \times 5}{7 \times 5} - \frac{4}{35}$$

$$G = \frac{46}{35}$$

$$H = \frac{10}{49} + \frac{8}{7}$$

$$H = \frac{10}{49} + \frac{8 \times 7}{7 \times 7}$$

$$H = \frac{66}{49}$$

Corrigé de l'exercice 2

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

$$A = \frac{9}{14} + \frac{6}{7}$$

$$A = \frac{9}{14} + \frac{6 \times 2}{7 \times 2}$$

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

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

$$B = \frac{2}{5} - \frac{4}{25}$$

$$B = \frac{2 \times 5}{5 \times 5} - \frac{4}{25}$$

$$B = \frac{6}{25}$$

$$C = \frac{3}{20} - \frac{1}{10}$$

$$C = \frac{3}{20} - \frac{1 \times 2}{10 \times 2}$$

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

$$D = \frac{5}{7} - \frac{4}{21}$$

$$D = \frac{5 \times 3}{7 \times 3} - \frac{4}{21}$$

$$D = \frac{11}{21}$$

$$E = \frac{10}{7} - \frac{10}{63}$$

$$E = \frac{10 \times 9}{7 \times 9} - \frac{10}{63}$$

$$E = \frac{80}{63}$$

$$F = \frac{7}{2} + \frac{3}{14}$$

$$F = \frac{7 \times 7}{2 \times 7} + \frac{3}{14}$$

$$F = \frac{26 \times 2}{7 \times 2}$$

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

$$G = \frac{5}{8} + \frac{5}{2}$$

$$G = \frac{5}{8} + \frac{5 \times 4}{2 \times 4}$$

$$G = \frac{25}{8}$$

$$H = \frac{3}{2} - \frac{7}{12}$$

$$H = \frac{3 \times 6}{2 \times 6} - \frac{7}{12}$$

$$H = \frac{11}{12}$$

Corrigé de l'exercice 3

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

$$A = \frac{7}{4} - \frac{7}{40}$$

$$A = \frac{7 \times 10}{4 \times 10} - \frac{7}{40}$$

$$A = \frac{63}{40}$$

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

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

$$B = \frac{11}{4}$$

$$C = \frac{7}{15} - \frac{2}{5}$$

$$C = \frac{7}{15} - \frac{2 \times 3}{5 \times 3}$$

$$C = \frac{1}{15}$$

$$D = \frac{5}{4} - \frac{7}{20}$$

$$D = \frac{5 \times 5}{4 \times 5} - \frac{7}{20}$$

$$D = \frac{9 \times 2}{10 \times 2}$$

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

$$E = \frac{8}{7} + \frac{4}{21}$$

$$E = \frac{8 \times 3}{7 \times 3} + \frac{4}{21}$$

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

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

$$F = \frac{9}{20} + \frac{6}{5}$$

$$F = \frac{9}{20} + \frac{6 \times 4}{5 \times 4}$$

$$F = \frac{33}{20}$$

$$G = \frac{7}{9} - \frac{7}{72}$$

$$G = \frac{7 \times 8}{9 \times 8} - \frac{7}{72}$$

$$G = \frac{49}{72}$$

$$H = \frac{2}{5} - \frac{6}{35}$$

$$H = \frac{2 \times 7}{5 \times 7} - \frac{6}{35}$$

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

Corrigé de l'exercice 4

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

$$A = \frac{7}{3} - \frac{7}{27}$$

$$A = \frac{7 \times 9}{3 \times 9} - \frac{7}{27}$$

$$A = \frac{56}{27}$$

$$B = \frac{8}{5} - \frac{7}{45}$$

$$B = \frac{8 \times 9}{5 \times 9} - \frac{7}{45}$$

$$B = \frac{13 \times 5}{9 \times 5}$$

$$B = \frac{13}{9}$$

$$C = \frac{9}{10} - \frac{7}{40}$$

$$C = \frac{9 \times 4}{10 \times 4} - \frac{7}{40}$$

$$C = \frac{29}{40}$$

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

$$D = \frac{1 \times 4}{2 \times 4} - \frac{3}{8}$$

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

$$E = \frac{7}{2} - \frac{7}{18}$$

$$E = \frac{7 \times 9}{2 \times 9} - \frac{7}{18}$$

$$E = \frac{28 \times 2}{9 \times 2}$$

$$E = \frac{28}{9}$$

$$F = \frac{5}{72} + \frac{8}{9}$$

$$F = \frac{5}{72} + \frac{8 \times 8}{9 \times 8}$$

$$F = \frac{23 \times 3}{24 \times 3}$$

$$F = \frac{23}{24}$$

$$G = \frac{3}{5} - \frac{6}{35}$$

$$G = \frac{3 \times 7}{5 \times 7} - \frac{6}{35}$$

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

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

$$H = \frac{7}{8} + \frac{7}{24}$$

$$H = \frac{7 \times 3}{8 \times 3} + \frac{7}{24}$$

$$H = \frac{7 \times 4}{6 \times 4}$$

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

Corrigé de l'exercice 5

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

$$A = \frac{8}{9} - \frac{1}{3}$$

$$A = \frac{8}{9} - \frac{1 \times 3}{3 \times 3}$$

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

$$B = \frac{7}{36} - \frac{1}{6}$$

$$B = \frac{7}{36} - \frac{1 \times 6}{6 \times 6}$$

$$B = \frac{1}{36}$$

$$C = \frac{9}{8} - \frac{5}{48}$$

$$C = \frac{9 \times 6}{8 \times 6} - \frac{5}{48}$$

$$C = \frac{49}{48}$$

$$D = \frac{7}{80} + \frac{7}{8}$$

$$D = \frac{7}{80} + \frac{7 \times 10}{8 \times 10}$$

$$D = \frac{77}{80}$$

$$E = \frac{7}{6} + \frac{1}{3}$$

$$E = \frac{7}{6} + \frac{1 \times 2}{3 \times 2}$$

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

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

$$F = \frac{7}{6} - \frac{7}{30}$$

$$F = \frac{7 \times 5}{6 \times 5} - \frac{7}{30}$$

$$F = \frac{14 \times 2}{15 \times 2}$$

$$F = \frac{14}{15}$$

$$G = \frac{4}{7} + \frac{6}{35}$$

$$G = \frac{4 \times 5}{7 \times 5} + \frac{6}{35}$$

$$G = \frac{26}{35}$$

$$H = \frac{6}{5} - \frac{3}{50}$$

$$H = \frac{6 \times 10}{5 \times 10} - \frac{3}{50}$$

$$H = \frac{57}{50}$$

Corrigé de l'exercice 6

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

$$A = \frac{1}{8} - \frac{3}{32}$$

$$A = \frac{1 \times 4}{8 \times 4} - \frac{3}{32}$$

$$A = \frac{1}{32}$$

$$B = \frac{3}{4} - \frac{5}{36}$$

$$B = \frac{3 \times 9}{4 \times 9} - \frac{5}{36}$$

$$B = \frac{11 \times 2}{18 \times 2}$$

$$B = \frac{11}{18}$$

$$C = \frac{4}{5} + \frac{8}{45}$$

$$C = \frac{4 \times 9}{5 \times 9} + \frac{8}{45}$$

$$C = \frac{44}{45}$$

$$D = \frac{3}{10} - \frac{7}{80}$$

$$D = \frac{3 \times 8}{10 \times 8} - \frac{7}{80}$$

$$D = \frac{17}{80}$$

$$E = \frac{7}{9} + \frac{10}{81}$$

$$E = \frac{7 \times 9}{9 \times 9} + \frac{10}{81}$$

$$E = \frac{73}{81}$$

$$F = \frac{8}{7} - \frac{8}{21}$$

$$F = \frac{8 \times 3}{7 \times 3} - \frac{8}{21}$$

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

$$G = \frac{1}{5} + \frac{3}{20}$$

$$G = \frac{1 \times 4}{5 \times 4} + \frac{3}{20}$$

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

$$H = \frac{5}{16} + \frac{1}{2}$$

$$H = \frac{5}{16} + \frac{1 \times 8}{2 \times 8}$$

$$H = \frac{13}{16}$$