

# Question du devoir n°4 - Géométrie

Ex 1:  $A = \frac{-7}{12} + \frac{5}{2} - \frac{9}{4}$   
 $= \frac{-7}{12} + \frac{30}{12} - \frac{27}{12}$   
 $= \frac{-4}{12} = \frac{-1}{3}$

$B = \frac{7}{15} - \frac{2}{15} \times \frac{9}{4}$   
 $= \frac{7}{15} - \frac{9}{30}$   
 $= \frac{14}{30} - \frac{9}{30} = \frac{5}{30} = \frac{1}{6}$

$C = \frac{5}{6} - \frac{1}{6} \times (5 + \frac{3}{2})$   
 $= \frac{5}{6} - \frac{1}{6} \times \frac{13}{2}$   
 $= \frac{10}{12} - \frac{13}{12} = \frac{-3}{12} = \frac{-1}{4}$

$D = \frac{-12}{25} \times \frac{45}{16} \times (-2)$   
 $= \frac{4 \times 3 \times 3 \times 3 \times 2}{5 \times 5 \times 4 \times 4}$   
 $= \frac{27 \times 2}{5 \times 4} = \frac{27}{10}$

$E = 3 : \frac{-3}{4} = 3 \times \frac{4}{-3} = -4$

$F = \frac{60}{7} : \frac{-4}{21} = \frac{60}{7} \times \frac{21}{-4} = -\frac{4 \times 15 \times 3 \times 7}{7 \times 4} = -45$

$G = \frac{-72/3}{6} = -\frac{72}{3} \times \frac{1}{6} = -\frac{9 \times 8}{3 \times 2 \times 3} = -\frac{8}{2} = -4$

$H = (\frac{-3}{4} + \frac{1}{2}) : (\frac{2}{3} - \frac{5}{2}) = (\frac{-3}{4} + \frac{2}{4}) : (\frac{4}{10} - \frac{25}{10})$   
 $= \frac{-1}{4} : \frac{-21}{10} = \frac{1}{4} \times \frac{10}{21} = \frac{5}{42}$

$I = \frac{-15}{4} : (\frac{5}{4} + \frac{5}{6}) = \frac{-15}{4} : (\frac{15}{12} + \frac{10}{12}) = \frac{-15}{4} : \frac{25}{12}$   
 $= \frac{-15}{4} \times \frac{12}{25} = \frac{-5 \times 3 \times 4 \times 3}{4 \times 5 \times 5} = \frac{-9}{5}$

Ex 2:  $A = \frac{a+b}{c} = \frac{-1 + 1/3}{2/5} = \frac{-2/3}{2/5}$   
 $= \frac{-2}{3} \times \frac{5}{2} = \frac{-5}{3}$

$a = -1$   
 $b = \frac{1}{3}$   
 $c = \frac{2}{5}$

$$B = \frac{a}{b+c} = \frac{-1}{\frac{1}{3} + \frac{2}{5}} = -1 : \left( \frac{5}{15} + \frac{6}{15} \right) = -1 : \frac{11}{15}$$

EX3:  $\frac{1}{4} + \frac{1}{5} = \frac{5}{20} + \frac{4}{20} = \frac{9}{20}$

Youni et Luc ont mangé  $\frac{9}{20}$  de la pastèque

$1 - \frac{9}{20} = \frac{11}{20}$  Reste de la pastèque

$\frac{2}{3} \times \frac{11}{20} = \frac{11}{30}$  Louane a mangé  $\frac{11}{30}$  de la pastèque

$$\frac{1}{4} \begin{array}{l} \xrightarrow{\times 15} 15 \\ \hline \xrightarrow{\times 15} 60 \end{array}$$

Youni

$$\frac{22}{60} > \frac{1}{60} > \frac{12}{60}$$

$$\frac{1}{5} \begin{array}{l} \xrightarrow{\times 12} 12 \\ \hline \xrightarrow{\times 12} 60 \end{array}$$

Luc

$$\frac{11}{30} \begin{array}{l} \xrightarrow{\times 2} 22 \\ \hline \xrightarrow{\times 2} 60 \end{array}$$

Louane

Il est Louane qui a mangé la plus grande part de pastèque.

EX4: 1)  $1 - \left( \frac{1}{4} + \frac{1}{2} \times \frac{3}{4} \right) = 1 - \left( \frac{1}{4} + \frac{3}{8} \right) = 1 - \frac{5}{8} = \frac{3}{8}$

En 2 h, il lui reste  $\frac{3}{8}$  des teneurs

2)  $\frac{3}{8} \times 40 = 3 \times \frac{40}{8} = 3 \times 5 = 15$   
 Il lui reste 15 ha de teneurs

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