Mathématiques 601/3 NOM :

CC08 **30 min** Prénom :

Donner le résultat sous forme simplifiée au maximum.

Exercice 1 [3 pts]

$\frac{14}{20} =$
$\frac{51}{12} =$
$\frac{300}{125} =$

Exercice 2 [2 pts]

$\frac{15 \times 2}{14 \times 10} =$
$\frac{48}{21 \times 32} =$

Exercice 3 [3 pts]

$\frac{3}{11} + \frac{1}{11} =$
$\frac{7}{8} - \frac{2}{8} =$
$\frac{27}{13} + \frac{12}{13} =$

Exercice 4 [4 pts]

$\frac{5}{14} + \frac{1}{7} =$
$\frac{11}{10} - \frac{1}{30} =$

Exercice 5 [4 pts]

$\frac{5}{12}+\frac{1}{18}=$

$\frac{7}{40}+\frac{1}{16}=$

Exercice 6 [2 pts]

$\frac{1}{5}+\frac{1}{3}+\frac{1}{2}=$

Exercice 7 [1 pt]

En présentant les calculs nécessaires, déterminer « la valeur » de la fraction : $\frac{35}{8}$

Exercice 8 [1 pt]

Déterminer « la valeur » de la fraction $\frac{351}{125}$

Corrigé

Exercice 1

- $\frac{14}{20} = \frac{\boxed{2} \times 7}{\boxed{2} \times 10} = \mathbf{\frac{7}{10}}$

- $\frac{51}{12} = \frac{\boxed{3} \times 17}{\boxed{3} \times 4} = \mathbf{\frac{17}{4}}$

- $\frac{300}{125} = \frac{\boxed{25} \times 12}{\boxed{25} \times 5} = \mathbf{\frac{12}{5}}$

Exercice 2

- $\frac{15 \times 2}{14 \times 10} = \frac{\boxed{5} \times 3 \times \boxed{2}}{\boxed{2} \times 7 \times 2 \times \boxed{5}} = \mathbf{\frac{3}{14}}$

- $\frac{48}{21 \times 32} = \frac{\boxed{16} \times \boxed{3} \times 1}{7 \times \boxed{3} \times \boxed{16} \times 2} = \mathbf{\frac{1}{14}}$

Exercice 3

- $\frac{3}{11} + \frac{1}{11} = \frac{3+1}{11} = \mathbf{\frac{4}{11}}$

- $\frac{7}{8} - \frac{2}{8} = \frac{7-2}{8} = \mathbf{\frac{5}{8}}$

- $\frac{27}{13} + \frac{12}{13} = \frac{27+12}{13} = \frac{39}{13} = \frac{3 \times \boxed{13}}{1 \times \boxed{13}} = \frac{3}{1} = \mathbf{3}$

Exercice 4

- $\frac{5}{14} + \frac{1}{7} = \frac{5}{14} + \frac{1 \times 2}{7 \times 2} = \frac{5}{14} + \frac{2}{14} = \frac{5+2}{14} = \frac{7}{14} = \frac{\boxed{7} \times 1}{\boxed{7} \times 2} = \mathbf{\frac{1}{2}}$

- $\frac{11}{10} - \frac{1}{30} = \frac{11 \times \boxed{3}}{10 \times \boxed{3}} - \frac{1}{30} = \frac{33}{30} - \frac{1}{30} = \frac{33-1}{30} = \frac{32}{30} = \frac{\boxed{2} \times 16}{\boxed{2} \times 15} = \mathbf{\frac{16}{15}}$

Exercice 5

- $\frac{5}{12} + \frac{1}{18} = \frac{5 \times 3}{12 \times 3} + \frac{1 \times 2}{18 \times 2} = \frac{15}{36} + \frac{2}{36} = \frac{15+2}{36} = \mathbf{\frac{17}{36}}$

- $\frac{7}{40} + \frac{1}{16} = \frac{7 \times \boxed{2}}{40 \times \boxed{2}} + \frac{1 \times \boxed{5}}{16 \times \boxed{5}} = \frac{14}{80} + \frac{5}{80} = \frac{14+5}{80} = \mathbf{\frac{19}{80}}$

Exercice 6

- $\frac{1}{5} + \frac{1}{3} + \frac{1}{2} = \frac{1 \times 6}{5 \times 6} + \frac{1 \times 10}{3 \times 10} + \frac{1 \times 15}{2 \times 15} = \frac{6}{30} + \frac{10}{30} + \frac{15}{30}$

$= \frac{6+10+15}{30} = \mathbf{\frac{31}{30}}$

Exercice 7

La valeur de la fraction $\frac{35}{8}$ est le quotient de la division décimale de 35 par 8, et on obtient (non rédigé) : $\frac{35}{8} = \mathbf{4{,}375}$.

Exercice 8

$\frac{351}{125} = \frac{351 \times \boxed{8}}{125 \times \boxed{8}} = \frac{2\,808}{1\,000} = \mathbf{2{,}808}$

On peut aussi poser la division décimale de 351 par 125 et regarder son quotient.