

2AC

Les nombres rationnels: addition et soustraction.

**Exercices d'applications
Série 1**

Les expressions encadrées sont des exemples corrigés

Exercice 1

Simplifier le plus possible:

$$\frac{21}{14} = \frac{7 \times 3}{7 \times 2} = \frac{3}{2} \quad ; \quad \frac{36}{42} = \frac{6 \times \dots}{6 \times \dots} = \dots$$

$$\frac{24}{-22} = \dots \quad ; \quad \frac{-15}{-18} = \dots$$

$$-\frac{25}{55} = \dots \quad ; \quad \frac{25}{200} = \dots$$

$$\frac{45}{63} = \dots \quad ; \quad \frac{555}{333} = \frac{5 \times \dots}{3 \times \dots} = \dots$$

$$-\frac{24}{-30} = \dots \quad ; \quad \frac{39}{52} = \dots$$

Exercice 2

Calculer et donner le résultat en fraction irréductible:

$$\frac{13}{12} + \frac{-8}{3} = \frac{13}{12} + \frac{-8 \times 4}{3 \times 4} = \frac{13}{12} + \frac{-32}{12} = \frac{13 + (-32)}{12} = \frac{-19}{12}$$

$$\frac{-12}{5} + \frac{-8}{-6} = \frac{\dots}{30} + \frac{\dots}{30} = \frac{\dots + \dots}{30} = \frac{\dots}{30} = \dots$$

$$\frac{8}{12} + -\left(\frac{-5}{6}\right) = \frac{\dots}{6} + \frac{\dots}{6} = \frac{\dots}{6} + \frac{\dots}{6} = \frac{\dots}{6} = \dots$$

$$\frac{15}{21} + \frac{-5}{7} = \dots$$

$$\frac{-3}{5} - \frac{7}{2} = \dots$$

$$\frac{5}{8} - (-3) = \dots$$

$$\frac{-2}{7} + \frac{9}{7} = \dots$$

$$-\frac{5}{16} + \frac{7}{4} = \dots$$

$$\frac{12}{-5} + \frac{11}{20} = \dots$$

$$\frac{-17}{-36} - \frac{-5}{-9} = \dots$$

$$\frac{9}{32} - \frac{-5}{-8} = \dots$$

$$\frac{13}{64} + \frac{5}{8} = \dots$$

$$\frac{9}{40} + \frac{2}{5} = \dots$$

$$\frac{18}{10} - \frac{11}{5} = \dots$$

Exercice 3

Calculer et donner le résultat en fraction irréductible:

$$\frac{1}{2} + \frac{5}{2} + \frac{-9}{2} = \frac{1 + 5 + (-9)}{2} = \frac{6 - 9}{2} = \frac{-3}{2}$$

$$\frac{4}{3} + \frac{-5}{6} + \frac{2}{3} = \frac{\dots}{6} + \frac{\dots}{6} + \frac{\dots}{6} = \frac{\dots + (-\dots) + \dots}{6} = \frac{\dots}{6}$$

$$-\frac{5}{8} + \frac{-7}{4} + \frac{3}{2} = \dots$$

$$\frac{-5}{7} + \frac{3}{-7} - \frac{-1}{-7} = \dots$$

$$\frac{5}{4} - \frac{7}{8} - \frac{2}{9} = \dots$$

$$\frac{-2}{3} - \frac{-5}{-2} - \frac{1}{-3} + \frac{4}{-7} = -\frac{\dots}{42} - \frac{\dots}{42} + \frac{\dots}{42} - \frac{\dots}{42}$$

$$= \dots$$

$$= \dots$$

$$\frac{2}{5} + \frac{-7}{-3} + \frac{9}{25} - \frac{1}{6} = \frac{\dots}{5} - \frac{\dots}{25} + \frac{\dots}{3} + \frac{\dots}{6}$$

$$= \frac{\dots}{25} - \frac{\dots}{25} + \frac{\dots}{6} + \frac{\dots}{6}$$

$$= \frac{\dots}{25} + \frac{\dots}{6}$$

$$= \frac{\dots}{50} + \frac{\dots}{50} = \frac{\dots}{50}$$

$$-11 + \frac{1}{11} + \frac{1}{6} - 6 = -\dots - \dots + \frac{\dots}{\dots} + \frac{\dots}{\dots}$$

$$= \dots$$

$$= \dots$$