

Chapitre 12 : Opérations sur les fractions
Savoir faire 1 : Additionner ou soustraire des fractions

**Exercice 1 :**

1. $\frac{5}{24} + \frac{11}{24} = \frac{16}{24} = \frac{2}{3}$

2. $\frac{1}{5} + \frac{9}{5} = \frac{10}{5} = 2$

3. $\frac{11}{12} - \frac{5}{12} = \frac{6}{12} = \frac{1}{2}$

4. $\frac{24}{15} - \frac{4}{15} = \frac{20}{15} = \frac{4}{3}$

Exercice 2 :

1. $\frac{9}{35} + \frac{6}{35} = \frac{15}{35} = \frac{3}{7}$

2. $\frac{1}{24} + \frac{5}{24} = \frac{6}{24} = \frac{1}{4}$

3. $\frac{18}{25} - \frac{3}{25} = \frac{15}{25} = \frac{3}{5}$

4. $\frac{17}{32} - \frac{11}{32} = \frac{6}{32} = \frac{3}{16}$

Exercice 3 :

1. $\frac{7}{20} + \frac{2}{5} = \frac{7}{20} + \frac{2 \times 4}{5 \times 4} = \frac{7}{20} + \frac{8}{20} = \frac{15}{20} = \frac{3}{4}$

2. $\frac{11}{18} + \frac{1}{6} = \frac{11}{18} + \frac{1 \times 3}{6 \times 3} = \frac{11}{18} + \frac{3}{18} = \frac{14}{18} = \frac{7}{9}$

3. $\frac{1}{3} - \frac{4}{39} = \frac{1 \times 13}{3 \times 13} - \frac{4}{39} = \frac{13}{39} - \frac{4}{39} = \frac{9}{39} = \frac{3}{13}$

4. $\frac{3}{4} - \frac{33}{100} = \frac{3 \times 25}{4 \times 25} - \frac{33}{100} = \frac{75}{100} - \frac{33}{100} = \frac{42}{100} = \frac{21}{50}$

Exercice 4 :

1. $\frac{8}{15} + \frac{1}{5} = \frac{8}{15} + \frac{1 \times 3}{5 \times 3} = \frac{8}{15} + \frac{3}{15} = \frac{11}{15}$

2. $\frac{7}{22} + \frac{5}{11} = \frac{7}{22} + \frac{5 \times 2}{11 \times 2} = \frac{7}{22} + \frac{10}{22} = \frac{17}{22}$

3. $\frac{3}{7} - \frac{3}{14} = \frac{3 \times 2}{7 \times 2} - \frac{3}{14} = \frac{6}{14} - \frac{3}{14} = \frac{3}{14}$

4. $\frac{11}{5} - \frac{71}{100} = \frac{11 \times 20}{5 \times 20} - \frac{71}{100} = \frac{220}{100} - \frac{71}{100} = \frac{139}{100}$

Exercice 5 :

1. $\frac{1}{12} + \frac{3}{12} = \frac{4}{12} = \frac{1}{3}$

2. $\frac{1}{4} - \frac{4}{20} = \frac{1}{20}$

3. $\frac{13}{4} - \frac{5}{2} = \frac{3}{4}$

4. $\frac{1}{6} - \frac{3}{42} = \frac{5}{42}$

Exercice 6 :

1. $\frac{5}{12} - \frac{5}{3} + \frac{1}{6} = \frac{5}{12} - \frac{5 \times 4}{3 \times 4} + \frac{1 \times 2}{6 \times 2} = \frac{5}{12} - \frac{20}{12} + \frac{2}{12} = \frac{-13}{12}$

2. $1 + \frac{1}{2} + \frac{3}{4} = \frac{4}{4} + \frac{1 \times 2}{2 \times 2} + \frac{3}{4} = \frac{4}{4} + \frac{2}{4} + \frac{3}{4} = \frac{9}{4}$

3. $\frac{5}{8} + \left(\frac{19}{24} - \frac{1}{3}\right) = \frac{5 \times 3}{8 \times 3} + \left(\frac{19}{24} - \frac{1 \times 8}{3 \times 8}\right) = \frac{15}{24} + \left(\frac{19}{24} - \frac{8}{24}\right) = \frac{15}{24} + \frac{11}{24} = \frac{26}{24} = \frac{13}{12}$

Exercice 7 :

1. $\frac{17}{12} + \frac{3}{4} + \frac{9}{2} = \frac{17}{12} + \frac{3 \times 3}{4 \times 3} + \frac{9 \times 6}{2 \times 6} = \frac{17}{12} + \frac{9}{12} + \frac{54}{12} = \frac{80}{12} = \frac{20}{3}$

2. $\frac{3}{4} - \frac{5}{2} + \frac{17}{8} = \frac{3 \times 2}{4 \times 2} - \frac{5 \times 4}{2 \times 4} + \frac{17}{8} = \frac{6}{8} - \frac{20}{8} + \frac{17}{8} = \frac{3}{8}$

3. $\frac{4}{5} - \frac{2}{15} + \frac{1}{3} = \frac{4 \times 3}{5 \times 3} - \frac{2}{15} + \frac{1 \times 5}{3 \times 5} = \frac{12}{15} - \frac{2}{15} + \frac{5}{15} = \frac{15}{15} = \frac{5}{4}$