

EXERCICES FRACTIONS (ADDITION, SOUSTRACTION, MULTIPLICATION, DIVISION)

1 Complète les calculs suivants en utilisant la règle d'addition et de soustraction de fractions.

$$\begin{array}{l} \frac{5}{9} + \frac{3}{9} = \frac{\dots + \dots}{9} \quad \left| \quad \frac{3}{7} - \frac{1}{7} = \frac{\dots - \dots}{7} \right. \\ \frac{5}{9} + \frac{3}{9} = \frac{\dots}{9} \quad \left| \quad \frac{3}{7} - \frac{1}{7} = \frac{\dots}{7} \right. \\ \frac{3}{14} + \frac{1}{14} + \frac{5}{14} = \frac{\dots + \dots + \dots}{14} = \frac{\dots}{14} \\ \frac{6}{17} + \frac{\dots}{17} = \frac{\dots + \dots}{17} = \frac{10}{17} \end{array}$$

2 Calcule.

$$\begin{array}{l} \frac{4}{9} + \frac{3}{9} = \dots \quad \left| \quad \frac{91}{121} - \frac{90}{121} = \dots \right. \\ \frac{43}{78} + \frac{28}{78} = \dots \quad \left| \quad \frac{101}{4} + \frac{26}{4} = \dots \right. \\ \frac{13}{17} - \frac{2}{17} = \dots \quad \left| \quad \frac{12}{12} - \frac{12}{12} = \dots \right. \end{array}$$

3 Simplifier, puis calculer

a. Simplifie au maximum les fractions suivantes.

$$\begin{array}{l} \frac{8}{12} = \dots \quad \left| \quad \frac{15}{35} = \dots \right. \\ \frac{40}{72} = \dots \quad \left| \quad \frac{52}{39} = \dots \right. \end{array}$$

b. Utilise les fractions simplifiées au maximum de la question a. pour effectuer les calculs suivants.

$$\begin{array}{l} A = \frac{8}{12} + \frac{5}{3} = \dots \quad \left| \quad C = \frac{15}{35} + \frac{2}{7} = \dots \right. \\ A = \dots \quad \left| \quad C = \dots \right. \\ A = \dots \quad \left| \quad C = \dots \right. \\ B = \frac{40}{72} - \frac{1}{9} = \dots \quad \left| \quad D = \frac{5}{3} - \frac{52}{39} = \dots \right. \\ B = \dots \quad \left| \quad D = \dots \right. \\ B = \dots \quad \left| \quad D = \dots \right. \end{array}$$

4 Effectue les calculs suivants en utilisant la méthode de ton choix.

$$\begin{array}{l} A = \frac{13}{8} + \frac{5}{2} + \frac{3}{4} \quad \left| \quad A = \dots \right. \\ A = \dots \quad \left| \quad B = 2 + \frac{3}{7} + \frac{11}{14} \right. \end{array}$$

$$\begin{array}{l} B = \dots \quad \left| \quad C = \dots \right. \\ B = \dots \quad \left| \quad D = 1 + \frac{9}{34} + \frac{3}{2} \right. \\ B = \dots \quad \left| \quad D = \dots \right. \\ C = \frac{15}{9} + \frac{2}{3} - \frac{6}{18} \quad \left| \quad D = \dots \right. \\ C = \dots \quad \left| \quad D = \dots \right. \end{array}$$

5 Effectue les calculs suivants et donne le résultat sous forme d'une fraction simplifiée au maximum.

$$\begin{array}{l} I = \frac{9}{11} - \frac{4}{121} \quad \left| \quad K = 9 - \frac{15}{2} - \frac{3}{2} \right. \\ I = \dots \quad \left| \quad K = \dots \right. \\ I = \dots \quad \left| \quad K = \dots \right. \\ I = \dots \quad \left| \quad K = \dots \right. \\ J = \frac{10}{24} + \frac{21}{36} \quad \left| \quad L = 1 - \frac{5}{8} + \frac{3}{8} \right. \\ J = \dots \quad \left| \quad L = \dots \right. \\ J = \dots \quad \left| \quad L = \dots \right. \\ J = \dots \quad \left| \quad L = \dots \right. \end{array}$$

6 Pour chaque calcul, réduis au même dénominateur les fractions puis calcule.

$$\begin{array}{l} A = \frac{7}{6} + \frac{2}{3} \quad \left| \quad C = \dots \right. \\ A = \frac{7}{6} + \frac{2 \times \dots}{3 \times \dots} \quad \left| \quad C = \dots \right. \\ A = \frac{7}{6} + \frac{\dots}{\dots} \quad \left| \quad D = 5 + \frac{3}{2} \right. \\ A = \frac{\dots}{\dots} \quad \left| \quad D = \dots \right. \\ B = \frac{3}{5} + \frac{11}{10} \quad \left| \quad D = \dots \right. \\ B = \frac{3 \times \dots}{5 \times \dots} + \frac{11}{10} \quad \left| \quad E = 3 - \frac{5}{7} \right. \\ B = \frac{\dots}{\dots} + \frac{11}{10} \quad \left| \quad E = \dots \right. \\ B = \frac{\dots}{\dots} \quad \left| \quad E = \dots \right. \\ C = \frac{8}{9} - \frac{1}{3} \quad \left| \quad E = \dots \right. \end{array}$$

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$$F = \frac{7}{5} - 2$$

$$F = \dots\dots\dots$$

$$F = \dots\dots\dots$$

$$F = \dots\dots\dots$$

$$G = \frac{13}{12} - \frac{19}{48}$$

$$G = \dots\dots\dots$$

$$G = \dots\dots\dots$$

$$H = \frac{17}{13} - \frac{11}{65}$$

$$H = \dots\dots\dots$$

$$H = \dots\dots\dots$$

7 Effectue et donne le résultat sous forme d'une fraction simplifiée au maximum.

$$N = \left(\frac{1}{10} + \frac{1}{30} \right) - \left(\frac{1}{5} - \frac{1}{15} \right)$$

$$N = \dots\dots\dots$$

$$N = \dots\dots\dots$$

$$N = \dots\dots\dots$$

$$P = \frac{11}{7} + \frac{7}{49} + \frac{6}{21}$$

$$P = \dots\dots\dots$$

$$P = \dots\dots\dots$$

$$P = \dots\dots\dots$$

8 Effectue et donne le résultat sous forme d'une fraction simplifiée au maximum.

$$Q = \frac{7}{18} + \frac{2}{6} + \frac{5}{9}$$

$$Q = \dots\dots\dots$$

$$Q = \dots\dots\dots$$

$$Q = \dots\dots\dots$$

$$R = \frac{8}{5} - \left(\frac{1}{10} + \frac{2}{10} \right)$$

$$R = \dots\dots\dots$$

$$R = \dots\dots\dots$$

$$R = \dots\dots\dots$$

9 Effectue et donne le résultat sous forme d'une fraction simplifiée au maximum.

$$S = \frac{7}{4} \times \frac{2}{3}$$

$$S = \dots\dots\dots$$

$$S = \dots\dots\dots$$

$$T = \frac{-8}{6} \times \frac{3}{-5}$$

$$T = \dots\dots\dots$$

$$T = \dots\dots\dots$$

$$U = \frac{3}{4} \times \frac{4}{5} + \frac{1}{4} \times \frac{2}{20}$$

$$U = \dots\dots\dots$$

$$U = \dots\dots\dots$$

$$U = \dots\dots\dots$$

$$V = \frac{1}{2} \times \frac{1}{2} + \frac{1}{4} \times \frac{1}{8} + \frac{1}{4} \times \frac{1}{2}$$

$$V = \dots\dots\dots$$

$$V = \dots\dots\dots$$

$$V = \dots\dots\dots$$

$$V = \dots\dots\dots$$

10 Effectue et donne le résultat sous forme d'une fraction simplifiée au maximum.

$$W = \frac{3}{4} \div \frac{4}{5}$$

$$W = \dots\dots\dots$$

$$W = \dots\dots\dots$$

$$W = \dots\dots\dots$$

$$X = \frac{-2}{3} \div \frac{6}{-1}$$

$$X = \dots\dots\dots$$

$$X = \dots\dots\dots$$

$$Y = \frac{1}{7} \div \frac{3}{14} + \frac{1}{6} \div \frac{3}{12}$$

$$Y = \dots\dots\dots$$

$$Y = \dots\dots\dots$$

$$Y = \dots\dots\dots$$

$$Y = \dots\dots\dots$$