

- Tous les résultats seront donnés sous forme d'une fraction irréductible ou d'un nombre entier -

**Ex1 [3 pts]**

$$\bullet \frac{750}{500} =$$

$$\bullet \frac{48}{160} =$$

$$\bullet \frac{27 \times 41}{82 \times 18} =$$

**Ex2 [4 pts]**

$$\bullet \frac{4}{5} - \frac{3}{10} =$$

$$\bullet 7 + \frac{3}{2} =$$

$$\bullet \frac{7}{15} - \frac{1}{20} =$$

$$\bullet 60 : 20 : 5 =$$

$$\bullet \frac{6}{5} \times \frac{7}{12} =$$

$$\bullet \frac{9}{5} \times 5 =$$

$$\bullet 210 \times \frac{1}{70} =$$

$$\bullet \frac{45}{26} \times \frac{13}{60} =$$

$$\bullet \frac{\frac{3}{5}}{\frac{2}{7}} =$$

$$\bullet \frac{\frac{13}{5}}{\frac{1}{4}} =$$

$$\bullet \frac{13}{5} \div 4 =$$

$$\bullet \frac{1}{6} + \frac{2}{9} + \frac{5}{12} =$$

$$\bullet 0,7 \times \frac{9}{14} =$$

**Ex4\* [5 points]**

$$\bullet \frac{5}{3} \times (4 : 2 + 2) =$$

$$\bullet \frac{1 + \frac{1}{3} - \frac{1}{4}}{1 - \frac{1}{3} + \frac{1}{4}} =$$

$$\bullet (7 - 6 : 3)^2 =$$

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

## Corrigé

### Ex1

$$\bullet \frac{750}{500} = \frac{\boxed{250} \times 3}{\boxed{250} \times 2} = \frac{3}{2} \quad \bullet \frac{48}{160} = \frac{\boxed{16} \times 3}{\boxed{16} \times 10} = \frac{3}{10}$$

$$\bullet \frac{27 \times 41}{82 \times 18} = \frac{\boxed{9} \times 3 \times \boxed{41}}{\boxed{41} \times 2 \times \boxed{9} \times 2} = \frac{3}{2 \times 2} = \frac{3}{4}$$

### Ex2

$$\bullet \frac{4}{5} - \frac{3}{10} = \frac{4 \times 2}{5 \times 2} - \frac{3}{10} = \frac{8}{10} - \frac{3}{10} = \frac{8-3}{10} = \frac{5}{10} = \frac{5 \times 1}{5 \times 2} = \frac{1}{2}$$

$$\bullet 7 + \frac{3}{2} = \frac{7}{1} + \frac{3}{2} = \frac{7 \times 2}{1 \times 2} + \frac{3}{2} = \frac{14}{2} + \frac{3}{2} = \frac{14+3}{2} = \frac{17}{2}$$

$$\bullet \frac{7}{15} - \frac{1}{20} = \frac{7 \times 4}{15 \times 4} - \frac{1 \times 3}{20 \times 3} = \frac{28}{60} - \frac{3}{60} = \frac{28-3}{60} = \frac{25}{60} = \frac{\boxed{5} \times 5}{\boxed{5} \times 12} = \frac{5}{12}$$

$$\bullet 60 : 20 : 5 = (60 : 20) : 5 = 3 : 5 = \frac{3}{5}$$

### Ex3

$$\bullet \frac{6}{5} \times \frac{7}{12} = \frac{6 \times 7}{5 \times 12} = \frac{\boxed{6} \times 7}{5 \times \boxed{6} \times 2} = \frac{7}{10} \quad \bullet \frac{9}{5} \times 5 = 9$$

$$\bullet 210 \times \frac{1}{70} = 3 \times 70 \times \frac{1}{70} = 3 \times 1 = 3$$

$$\bullet \frac{45}{26} \times \frac{13}{60} = \frac{45 \times 13}{26 \times 60} = \frac{\boxed{15} \times 3 \times \boxed{13}}{\boxed{13} \times 2 \times \boxed{15} \times 4} = \frac{3}{8}$$

$$\bullet \frac{\frac{3}{5}}{\frac{2}{7}} = \frac{3}{5} \times \frac{7}{2} = \frac{3 \times 7}{5 \times 2} = \frac{21}{10}$$

$$\bullet \frac{13}{\frac{5}{4}} = 13 \times \frac{4}{5} = \frac{13}{1} \times \frac{4}{5} = \frac{13 \times 4}{1 \times 5} = \frac{52}{5}$$

$$\bullet \frac{13}{\frac{5}{4}} = \frac{13}{\frac{5}{4}} = \frac{13}{5} \times \frac{4}{1} = \frac{13 \times 4}{5 \times 1} = \frac{52}{5}$$

$$\bullet 0,7 \times \frac{9}{14} = \frac{7}{10} \times \frac{9}{14} = \frac{7 \times 9}{10 \times 14} = \frac{\boxed{7} \times 9}{10 \times \boxed{7} \times 2} = \frac{9}{20}$$

### Ex4\*

$$\bullet \frac{5}{3} \times (4 : 2 + 2) = \frac{5}{3} \times (2 + 2) = \frac{5}{3} \times 4 = \frac{5}{3} \times \frac{4}{1} = \frac{5 \times 4}{3 \times 1} = \frac{20}{3}$$

$$\bullet (7 - 6 : 3)^2 = (7 - 2)^2 = 5^2 = 25$$

$$\bullet \frac{3 - \frac{1}{2}}{5 + \frac{1}{2}} = \frac{\frac{6}{2} - \frac{1}{2}}{\frac{10}{2} + \frac{1}{2}} = \frac{\frac{6-1}{2}}{\frac{10+1}{2}} = \frac{\frac{5}{2}}{\frac{11}{2}} = \frac{5}{2} \times \frac{2}{11} = \frac{5 \times \boxed{2}}{\boxed{2} \times 11} = \frac{5}{11}$$

$$\bullet \frac{1}{6} + \frac{2}{9} + \frac{5}{12} = \frac{1 \times 6}{6 \times 6} + \frac{2 \times 4}{9 \times 4} + \frac{5 \times 3}{12 \times 3} = \frac{6}{36} + \frac{8}{36} + \frac{15}{36} = \frac{6+8+15}{36}$$

$$= \frac{29}{36}$$

$$\bullet \frac{1 + \frac{1}{3} - \frac{1}{4}}{1 - \frac{1}{3} + \frac{1}{4}} = \frac{\frac{12}{12} + \frac{4}{12} - \frac{3}{12}}{\frac{12}{12} - \frac{4}{12} + \frac{3}{12}} = \frac{\frac{12+4-3}{12}}{\frac{12-4+3}{12}} = \frac{\frac{13}{12}}{\frac{11}{12}} = \frac{13}{12} \times \frac{12}{11}$$

$$= \frac{13 \times \boxed{12}}{\boxed{12} \times 11} = \frac{13}{11}$$