CORRECTION FRACTIONS :

Exercice 1 : Somme :

1. $\frac{2}{3}+\frac{5}{6}=\frac{2\times 2}{3\times 2}+\frac{5}{6}=\frac{4}{6}+\frac{5}{6}=\frac{9}{6}=\frac{3}{2}$

2. $\frac{4}{5}-\frac{5}{3}=\frac{12}{15}-\frac{25}{15}=-\frac{13}{15}$

3. $\frac{2}{7}-\frac{1}{4}=\frac{8}{28}-\frac{7}{28}=\frac{1}{28}$

4. $-\frac{5}{6}+\frac{3}{4}=-\frac{20}{24}+\frac{18}{24}=-\frac{2}{24}=-\frac{1}{12}$

5. $-\frac{2}{5}-\frac{3}{11}=-\frac{22}{55}-\frac{15}{55}=-\frac{37}{55}$

6. $3+\frac{2}{5}=\frac{15}{5}+\frac{2}{5}=\frac{17}{5}$

7. $1-\frac{5}{4}=\frac{4}{4}-\frac{5}{4}=-\frac{1}{4}$

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

9. $-\frac{2}{7}-5=-\frac{2}{7}-\frac{35}{7}=-\frac{37}{7}$

Exercice 2 : Produit :

1. $2\times\frac{4}{5}=\frac{2\times 4}{5}=\frac{8}{5}$

2. $6\times\frac{8}{15}=\frac{3\times 2\times 8}{3\times 5}=\frac{16}{5}$

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

4. $\frac{3}{4} \times \left(-\frac{7}{2}\right) = -\frac{21}{8}$

5. $\frac{5}{6} \times \frac{3}{5} = \frac{5 \times 3}{6 \times 5} = \frac{3}{6} = \frac{1}{2}$

6. $-\frac{5}{9} \times \frac{3}{10} = -\frac{5 \times 3}{3 \times 3 \times 2 \times 5} = -\frac{1}{6}$

7. $\frac{8}{7} \times \frac{14}{3} = \frac{8 \times 2 \times 7}{7 \times 3} = \frac{16}{3}$

8. $-\frac{3}{4} \times \left(-\frac{10}{9}\right) = \frac{3 \times 2 \times 5}{2 \times 2 \times 3 \times 3} = \frac{5}{6}$

9. $\frac{8}{5} \times \frac{15}{2} = \frac{2 \times 4 \times 3 \times 5}{5 \times 2} = 12$

<u>Exercice 3 :</u> Quotient :

1. $\frac{\frac{2}{5}}{\frac{7}{3}} = \frac{2}{5} \times \frac{3}{7} = \frac{6}{35}$

2. $\frac{\frac{5}{6}}{\frac{3}{4}} = \frac{5}{6} \times \frac{4}{3} = \frac{5 \times 2 \times 2}{3 \times 2 \times 3} = \frac{10}{9}$

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

4. $$\frac{2}{\frac{5}{4}} = 2 \times \frac{4}{5} = \frac{8}{5}$$

5. $$\frac{1}{\frac{1}{4}} = 1 \times \frac{4}{1} = 4$$

6. $$\frac{\frac{2}{5}}{6} = \frac{2}{5} \times \frac{1}{6} = \frac{2}{5 \times 2 \times 3} = \frac{1}{15}$$

Exercice 4 : Mélange :

1. $$\frac{1}{3} + \frac{3}{4} \times \frac{2}{5} = \frac{1}{3} + \frac{3}{10} = \frac{10}{30} + \frac{9}{30} = \frac{19}{30}$$

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

3. $$\frac{\frac{1}{2} + \frac{4}{3}}{\frac{3}{5} - \frac{2}{7}} = \frac{\frac{3}{6} + \frac{8}{6}}{\frac{21}{35} - \frac{10}{35}} = \frac{\frac{11}{6}}{\frac{11}{35}} = \frac{11}{6} \times \frac{35}{11} = \frac{35}{6}$$

4. $$\frac{\frac{3}{4} - \frac{5}{3}}{\frac{3}{4} + \frac{5}{3}} = \frac{\frac{9}{12} - \frac{20}{12}}{\frac{9}{12} + \frac{20}{12}} = \frac{-\frac{11}{12}}{\frac{29}{12}} = -\frac{11}{12} \times \frac{12}{29} = -\frac{11}{29}$$

5. $$5-\frac{2}{3}\times\frac{7}{2}=5-\frac{7}{3}=\frac{15}{3}-\frac{7}{3}=\frac{8}{3}$$

6. $$\frac{1+\frac{3}{5}}{4-\frac{1}{2}}=\frac{\frac{5}{5}+\frac{3}{5}}{\frac{8}{2}-\frac{1}{2}}=\frac{\frac{8}{5}}{\frac{7}{2}}=\frac{8}{5}\times\frac{2}{7}=\frac{16}{35}$$

7. $$\frac{\frac{2}{5}\times\frac{3}{4}}{\frac{2}{5}-\frac{5}{4}}=\frac{\frac{3}{10}}{\frac{8}{20}-\frac{25}{20}}=\frac{\frac{3}{10}}{-\frac{17}{20}}=-\frac{3}{10}\times\frac{20}{17}=-\frac{6}{17}$$