



## Multiplication de fractions

**Exercice n°1 :** Calculer les produits suivants.

$A = \frac{5}{11} \times \frac{5}{6}$	$B = \frac{2}{5} \times \frac{7}{3}$	$C = \frac{-8}{3} \times \frac{4}{7}$	$D = \frac{-12}{7} \times \frac{-2}{11}$
$E = \frac{8}{11} \times \frac{2}{5}$	$F = \frac{7}{4} \times \frac{7}{12}$	$G = \frac{-5}{-3} \times \frac{-8}{9}$	$H = \frac{0}{-10} \times \frac{-8}{4}$

**Exercice n°2 :** Calculer les produits suivants et donner le résultat sous la forme d'une fraction irréductible.

$A = \frac{3}{10} \times \frac{10}{9}$	$B = \frac{15}{4} \times \frac{24}{35}$	$C = \frac{11}{5} \times \frac{7}{11}$
$D = \frac{-6}{25} \times \frac{35}{2}$	$E = \frac{-5}{7} \times \frac{6}{-10}$	$F = \frac{-35}{-7} \times \frac{-12}{36}$
$G = \frac{24}{18} \times \frac{28}{7}$	$H = \frac{-9}{-7} \times \frac{-14}{-15}$	$I = \frac{3}{8} \times \frac{32}{27}$
$J = \frac{-9}{2} \times \frac{10}{9}$	$K = \frac{48}{18} \times \frac{9}{4}$	$L = \frac{-6}{-15} \times \frac{-10}{-8}$
$M = \frac{14}{10} \times \frac{15}{6}$	$N = \frac{-99}{-8} \times \frac{6}{-66}$	$O = \frac{16}{2} \times \frac{4}{8}$
$P = \frac{7}{6} \times \frac{5}{2} \times \frac{6}{7}$	$Q = \frac{2}{7} \times \frac{5}{6} \times \frac{3}{25}$	$R = \frac{12}{10} \times \frac{15}{4} \times \frac{49}{6} \times \frac{3}{7}$



## Multiplication de fractions

### Correction

**Exercice n°1 :** Calculer les produits suivants.

$A = \frac{5}{11} \times \frac{5}{6}$ $A = \frac{5 \times 5}{11 \times 6}$ $A = \frac{25}{66}$	$B = \frac{2}{5} \times \frac{7}{3}$ $B = \frac{2 \times 7}{5 \times 3}$ $B = \frac{14}{15}$	$C = \frac{-8}{3} \times \frac{4}{7}$ $C = \frac{-8 \times 4}{3 \times 7}$ $C = \frac{-32}{21}$	$D = \frac{-12}{7} \times \frac{-2}{11}$ $D = \frac{-12 \times -2}{7 \times 11}$ $D = \frac{24}{77}$
$E = \frac{8}{11} \times \frac{2}{5}$ $E = \frac{8 \times 2}{11 \times 5}$ $E = \frac{16}{55}$	$F = \frac{7}{4} \times \frac{7}{12}$ $F = \frac{7 \times 7}{4 \times 12}$ $F = \frac{49}{48}$	$G = \frac{-5}{-3} \times \frac{-8}{9}$ $G = \frac{-5 \times -8}{-3 \times 9}$ $G = \frac{40}{-27} = \frac{-40}{27}$	$H = \frac{0}{-10} \times \frac{-8}{4}$ $H = \frac{0 \times -8}{-10 \times 4}$ $H = \frac{0}{-40} = 0$

**Exercice n°2 :** Calculer les produits suivants et donner le résultat sous la forme d'une fraction irréductible.

$A = \frac{3}{10} \times \frac{10}{9}$ $A = \frac{3 \times 10}{10 \times 9}$ $A = \frac{\cancel{3} \times \cancel{10}}{10 \times \cancel{3} \times 3}$ $A = \frac{1}{3}$	$B = \frac{15}{4} \times \frac{24}{35}$ $B = \frac{15 \times 24}{4 \times 35}$ $B = \frac{3 \times \cancel{5} \times \cancel{4} \times 6}{\cancel{4} \times \cancel{5} \times 7}$ $B = \frac{18}{7}$	$C = \frac{11}{5} \times \frac{7}{11}$ $C = \frac{\cancel{11} \times 7}{5 \times \cancel{11}}$ $C = \frac{7}{5}$
$D = \frac{-6}{25} \times \frac{35}{2}$ $D = \frac{-6 \times 35}{25 \times 2}$ $D = \frac{-3 \times \cancel{2} \times \cancel{5} \times 7}{5 \times \cancel{5} \times \cancel{2}}$ $D = \frac{-21}{5}$	$E = \frac{-5}{7} \times \frac{6}{-10}$ $E = \frac{-5 \times 6}{-7 \times 10}$ $E = \frac{\cancel{5} \times \cancel{2} \times 3}{7 \times \cancel{2} \times \cancel{5}}$ $E = \frac{3}{7}$	$F = \frac{-35}{-7} \times \frac{-12}{36}$ $F = -\frac{35 \times 12}{7 \times 36}$ $F = -\frac{5 \times \cancel{7} \times \cancel{12}}{\cancel{7} \times 3 \times \cancel{12}}$ $F = -\frac{5}{3}$
$G = \frac{24}{18} \times \frac{28}{7}$	$H = \frac{-9}{-7} \times \frac{-14}{-15}$	$I = \frac{3}{8} \times \frac{32}{27}$

$$G = \frac{24 \times 28}{18 \times 7}$$

$$G = \frac{4 \times \cancel{6} \times 4 \times \cancel{7}}{3 \times \cancel{6} \times \cancel{7}}$$

$$G = \frac{8}{3}$$

$$H = \frac{9 \times 14}{7 \times 15}$$

$$H = \frac{\cancel{3} \times 3 \times 2 \times \cancel{7}}{\cancel{7} \times \cancel{3} \times 5}$$

$$H = \frac{6}{5}$$

$$I = \frac{3 \times 32}{8 \times 27}$$

$$I = \frac{\cancel{3} \times 4 \times \cancel{8}}{\cancel{8} \times \cancel{3} \times 9}$$

$$I = \frac{4}{9}$$

$$J = \frac{-9}{2} \times \frac{10}{9}$$

$$J = -\frac{9 \times 10}{2 \times 9}$$

$$J = -\frac{\cancel{9} \times \cancel{2} \times 5}{2 \times \cancel{9}}$$

$$J = -5$$

$$K = \frac{48}{18} \times \frac{9}{4}$$

$$K = \frac{48 \times 9}{18 \times 4}$$

$$K = \frac{2 \times \cancel{2} \times \cancel{4} \times \cancel{3} \times \cancel{3} \times 3}{\cancel{3} \times \cancel{3} \times \cancel{2} \times \cancel{4}}$$

$$K = 6$$

$$L = \frac{-6}{-15} \times \frac{-10}{-8}$$

$$L = \frac{-6 \times -10}{-15 \times -8}$$

$$L = \frac{\cancel{2} \times \cancel{3} \times \cancel{2} \times \cancel{5}}{\cancel{3} \times \cancel{5} \times \cancel{2} \times \cancel{2} \times 2}$$

$$L = \frac{1}{2}$$

$$M = \frac{14}{10} \times \frac{15}{6}$$

$$M = \frac{14 \times 15}{10 \times 6}$$

$$M = \frac{\cancel{2} \times 7 \times \cancel{3} \times \cancel{5}}{\cancel{2} \times \cancel{5} \times \cancel{2} \times \cancel{3}}$$

$$M = \frac{7}{2}$$

$$N = \frac{-99}{-8} \times \frac{6}{-66}$$

$$N = -\frac{99 \times 6}{8 \times 66}$$

$$N = -\frac{9 \times \cancel{11} \times \cancel{6}}{8 \times \cancel{6} \times \cancel{11}}$$

$$N = -\frac{9}{8}$$

$$O = \frac{16}{2} \times \frac{4}{8}$$

$$O = \frac{16 \times 4}{2 \times 8}$$

$$O = \frac{\cancel{4} \times \cancel{4} \times \cancel{2} \times \cancel{2}}{\cancel{2} \times \cancel{2} \times \cancel{4}}$$

$$O = 4$$

$$P = \frac{7}{6} \times \frac{5}{2} \times \frac{6}{7}$$

$$P = \frac{\cancel{7} \times 5 \times \cancel{6}}{\cancel{6} \times 2 \times \cancel{7}}$$

$$P = \frac{5}{2}$$

$$Q = \frac{2}{7} \times \frac{5}{6} \times \frac{3}{25}$$

$$Q = \frac{\cancel{2} \times \cancel{5} \times \cancel{3}}{7 \times \cancel{2} \times \cancel{3} \times \cancel{5} \times 5}$$

$$Q = \frac{1}{35}$$

$$R = \frac{12}{10} \times \frac{15}{4} \times \frac{49}{6} \times \frac{3}{7}$$

$$R = \frac{\cancel{2} \times \cancel{6} \times \cancel{3} \times \cancel{5} \times \cancel{7} \times \cancel{7} \times 3}{\cancel{5} \times \cancel{2} \times \cancel{2} \times \cancel{2} \times \cancel{6} \times \cancel{7}}$$

$$R = \frac{9}{4}$$