

Multiplying and Dividing Fractions

Quick rule: Multiply

Multiply straight across both top and bottom.

For example:

$$\begin{array}{c} \longrightarrow \\ \frac{2}{3} \times \frac{5}{7} = \frac{10}{21} \\ \longrightarrow \end{array}$$

Quick Rule: Whole numbers

Any whole number can be written as a fraction.

For example:

$$9 \rightarrow \frac{9}{1}$$

Quick Rule: Divide

Flip the fraction on the right then multiply straight across.

For example:

$$\frac{2}{3} \div \frac{5}{7} \rightarrow \frac{2}{3} \times \frac{7}{5} = \frac{14}{15}$$

Examples

1. $\frac{2}{3} \times \frac{9}{8}$

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

3. $2\frac{4}{5} \times 4\frac{2}{7}$

4. $\frac{26}{20} \times \frac{25}{39}$

5. $\frac{15}{32} \div \frac{5}{12}$

6. $\frac{6}{7} \div \frac{9}{10}$

7. $\frac{32}{15} \div 3\frac{1}{5}$

8. $3\frac{2}{3} \div 2\frac{4}{9}$

9. $\frac{28}{3} \div 7$

10. $\left(-\frac{12x}{35}\right) \cdot \left(-\frac{21x}{8}\right)$

11. $\frac{16ab^2}{27c} \div \frac{40a^3b^2}{15c^2}$

12. $\left(\frac{16x}{3x^5}\right) \cdot \left(-\frac{9x^3}{8x}\right)$

13. $\frac{2a^3}{6b^2} \cdot \frac{3b^4}{5a}$

14. $\frac{0}{4} \div \frac{6}{x}$

15. $\frac{2}{3} \div \left(\frac{6}{7} \div \frac{2}{14}\right)$

Answer key

1. $\frac{3}{4}$

2. $\frac{26}{3}$

3. 12

4. $\frac{5}{6}$

5. $\frac{9}{8}$

6. $\frac{20}{21}$

7. $\frac{2}{3}$

8. $\frac{3}{2}$

9. $\frac{4}{3}$

10. $\frac{9x^2}{10}$

11. $\frac{2c}{9a^2}$

12. $-\frac{6}{x^2}$

13. $\frac{a^2b^2}{5}$

14. 0

15. $\frac{1}{9}$