

# Fill in the Blanks

# Multiplying Algebraic Fractions

| Question  | Write as a Single Fraction                         | Simplify Numerator and Denominator | Simplified Answer (where possible) |
|---|--|------------------------------------|------------------------------------|
| $\frac{x}{4} \times \frac{2x}{3}$                   | $\frac{x \times 2x}{4 \times 3}$                   | $\frac{2x^2}{12}$                  | $\frac{x^2}{6}$                    |
| $\frac{x}{6} \times \frac{4y}{5}$                   | $\frac{x \times 4y}{6 \times 5}$                   | $\frac{4xy}{30}$                   |                                    |
| $\frac{2}{x} \times \frac{3xy}{5}$                  | $\frac{2 \times 3xy}{x \times 5}$                  |                                    |                                    |
| $\frac{4x}{3y} \times \frac{2y}{x}$                 |  |                                    |                                    |
| $\frac{2}{7x} \times \frac{3xy}{4}$                 |  |                                    |                                    |
| $\frac{x^2}{8} \times \frac{4y}{x}$                 |  |                                    |                                    |
| $\frac{2y}{x} \times \frac{9x^2y}{4}$               |  |                                    |                                    |
| $\frac{10y}{x^2} \times \frac{3xy^2}{5}$            |  |                                    |                                    |
| $\frac{4yz}{3} \times \frac{x^2}{6y^3}$             |  |                                    |                                    |
| $\frac{2x^3}{15yz} \times \frac{5x^2y^2}{z^3}$      |  |                                    |                                    |
| $\frac{\square}{5y^2} \times \frac{4x^2y}{\square}$ | $\frac{\square \times 4x^2y}{5y^2 \times \square}$ | $\frac{24x^3y}{15y^2}$             |                                    |
| $\frac{12x}{5yz} \times \frac{\square}{\square}$    |  |                                    | $\frac{6x^3y}{25z}$                |