

# Fill in the Blanks

# Multiplying Algebraic Fractions

Question	Write as a Single Fraction	Simplify Numerator and Denominator	Simplified Answer (where possible)
$\frac{x}{4} \times \frac{2x}{3}$	$\frac{x \times 2x}{4 \times 3}$	$\frac{2x^2}{12}$	$\frac{x^2}{6}$
$\frac{x}{6} \times \frac{4y}{5}$	$\frac{x \times 4y}{6 \times 5}$	$\frac{4xy}{30}$	$\frac{2xy}{15}$
$\frac{2}{x} \times \frac{3xy}{5}$	$\frac{2 \times 3xy}{x \times 5}$	$\frac{6xy}{5x}$	$\frac{6y}{5}$
$\frac{4x}{3y} \times \frac{2y}{x}$	$\frac{4x \times 2y}{3y \times x}$	$\frac{8xy}{3xy}$	$\frac{8}{3}$
$\frac{2}{7x} \times \frac{3xy}{4}$	$\frac{2 \times 3xy}{7x \times 4}$	$\frac{6xy}{28x}$	$\frac{3y}{14}$
$\frac{x^2}{8} \times \frac{4y}{x}$	$\frac{x^2 \times 4y}{8 \times x}$	$\frac{4x^2y}{8x}$	$\frac{xy}{2}$
$\frac{2y}{x} \times \frac{9x^2y}{4}$	$\frac{2y \times 9x^2y}{x \times 4}$	$\frac{18x^2y^2}{4x}$	$\frac{9xy^2}{2}$
$\frac{10y}{x^2} \times \frac{3xy^2}{5}$	$\frac{10y \times 3xy^2}{x^2 \times 5}$	$\frac{30xy^3}{5x^2}$	$\frac{6y^3}{x}$
$\frac{4yz}{3} \times \frac{x^2}{6y^3}$	$\frac{4yz \times x^2}{3 \times 6y^3}$	$\frac{4x^2yz}{18y^3}$	$\frac{2x^2z}{9y^2}$
$\frac{2x^3}{15yz} \times \frac{5x^2y^2}{z^3}$	$\frac{2x^3 \times 5x^2y^2}{15yz \times z^3}$	$\frac{10x^5y^2}{15yz^4}$	$\frac{2x^5y}{3z^4}$
$\frac{6x}{5y^2} \times \frac{4x^2y}{3}$	$\frac{6x \times 4x^2y}{5y^2 \times 3}$	$\frac{24x^3y}{15y^2}$	$\frac{8x^3}{5y}$
$\frac{12x}{5yz} \times \frac{x^2y^2}{10}$	$\frac{12x \times x^2y^2}{5yz \times 10}$	$\frac{12x^3y^2}{50yz}$	$\frac{6x^3y}{25z}$