

$$\frac{5}{6}x \div \frac{1}{2}x^2y \div \frac{3}{x}y^2$$

$$= \frac{5x}{6} \div \frac{x^2y}{2} \div \frac{3y^2}{x}$$

$$= \frac{5x}{6} \times \frac{2}{x^2y} \times \frac{x}{3y^2}$$