

Simplify each of the following complex fractions.

1.  $\frac{\frac{5x^2}{9y^2}}{\frac{3x}{y^2x}}$

2.  $\frac{\frac{1}{x}-3}{\frac{1}{x}+3}$

3.  $\frac{6}{2z-\frac{10}{z-4}}$

4.  $\frac{\frac{y}{y+3}}{\frac{y}{y+3}+y}$

$$5. \frac{1 - \frac{1}{x} - \frac{6}{x^2}}{1 - \frac{4}{x} + \frac{3}{x^2}}$$

$$6. \frac{2 - \frac{2}{t+1}}{2 + \frac{2}{t}}$$

$$7. \frac{\frac{1}{y+2} + \frac{4}{y-3}}{\frac{2}{y-3} - \frac{7}{y+2}}$$

$$8. \frac{x^{-2}}{x+3x^{-1}}$$

$$9. \frac{x^{-1} + x^{-2}}{5x^{-2}}$$