

Simplify each complex rational expression.

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

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

3.  $\frac{\frac{1}{x}+\frac{1}{y}}{x+y}$

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

5.  $\frac{\frac{x-4}{x}-\frac{4}{x}}{4-x}$

6.  $\frac{\frac{1}{a+h}-\frac{1}{a}}{h}$