

$$\lim_{x \rightarrow 3} \frac{x^2 - 1}{x + 3}$$

$$\lim_{x \rightarrow 3} \frac{x^2 - 1}{x - 3}$$

$$\lim_{x \rightarrow 3} \frac{(x^2 - 1)(x - 3)}{x - 3}$$

$$\lim_{x \rightarrow 3} \frac{x - 3}{x^2 - 1}$$

$$\lim_{x \rightarrow 3} \frac{(x - 4)^2}{x^5 (x - 8)^9 (x - 3)^3}$$

$$\lim_{x \rightarrow 3} \frac{(x - 4)^2 (x - 3)}{x^5 (x - 8)^9 (x - 3)^3}$$

Suppose $f(x) = \sqrt{x}$. Find $\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$ where $x > 0$