

Remember to show all work for full credit.

Determine if each limit exists. If the limit exists, find its value.

1) $\lim_{x \rightarrow 3} \frac{x^2 - 9}{x - 3}$

2) $\lim_{x \rightarrow 25} \frac{\sqrt{x} - 5}{x - 25}$

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

4) $\lim_{x \rightarrow \infty} \frac{2x^2 - 7x^4}{9x^2 + 5x - 6}$