

Names: _____

Activity #1: Limits

Calculus I

1. Compute the following limit.

$$\lim_{x \rightarrow 5} (5x^2 + 9x + 7)$$

2. Compute the following limit.

$$\lim_{x \rightarrow 3} \frac{x^2 + 3x - 18}{x - 3}$$

3. Compute the following limit.

$$\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}$$

4. Compute the following limit.

$$\lim_{x \rightarrow 81} \frac{x - 81}{\sqrt{x} - 9}$$

5. Compute the following limit.

$$\lim_{x \rightarrow 17} \frac{\sqrt{x - 8} - 3}{x - 17}$$

6. Compute the following limit.

$$\lim_{x \rightarrow 18} \frac{\sqrt{x - 2} - 4}{x - 18}$$

7. Compute the following limit.

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

8. Compute the following limit.

$$\lim_{x \rightarrow -1} \frac{x^3 + 2x^2 - 5x - 6}{x + 1}$$