

Name:

Section: 5 6 (circle one)

Find the following limits, if they exist:

1. 
$$\lim_{x \rightarrow 3^-} \frac{(x-4)|x-3|}{x^2-9}$$

2. 
$$\lim_{x \rightarrow 0} \frac{\sin(2x)}{3x}$$

3. 
$$\lim_{x \rightarrow 0^+} \frac{\sin(x)}{\sqrt{x}}$$

4. 
$$\lim_{x \rightarrow 2} (x-2)^2 \sin\left(\frac{1}{x-2}\right)$$

5. 
$$\lim_{x \rightarrow \infty} \frac{\sin(2x+1)}{x+3}$$

6. 
$$\lim_{x \rightarrow \infty} \frac{\sqrt{x^2+1}+2x}{3x+7}$$