

## Math 2250 Quiz 2

Name \_\_\_\_\_ Section \_\_\_\_\_

*Points will be deducted for untidy or disorganized answers*

1. (1 point) Calculate the following limit (be sure to justify your answer).

$$\lim_{\theta \rightarrow 0} \frac{\theta}{\sin 3\theta}.$$

2. (1 point) Calculate the following limit (be sure to justify your answer).

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

3. (3 points) Calculate

(a)  $\lim_{x \rightarrow 0^+} \frac{2x - |x|}{x + 3|x|}$

(b)  $\lim_{x \rightarrow 0^-} \frac{2x - |x|}{x + 3|x|}$

(c)  $\lim_{x \rightarrow 0} \frac{2x - |x|}{x + 3|x|}$