

**MATH 3208 LIMITS QUIZ**

NAME: \_\_\_\_\_

Evaluate the following limits.

1.  $\lim_{x \rightarrow 1} \frac{x^3 - x^2 - 9x + 9}{x^2 + 2x - 3}$  [5]

2.  $\lim_{x \rightarrow 0} \frac{(1+x)^3 - 1}{x}$  [5]

3.  $\lim_{x \rightarrow 0} \frac{\sqrt{x+1} - 1}{x^2 - x}$  [5]

4.  $\lim_{x \rightarrow -2} \frac{\frac{x}{x+8} + \frac{1}{3}}{x+2}$  [5]

5.  $\lim_{x \rightarrow 2} \frac{|2x-4|}{x^2-3x+2}$  [5]

6.  $\lim_{x \rightarrow 3^+} \frac{|3-x|}{x^2-6x+9}$  [5]

7.  $\lim_{x \rightarrow 0} \frac{\tan 4x}{\sin 2x} =$  [5]

8.  $\lim_{x \rightarrow 0} \frac{\sin^2 3x}{x^2 \cos^2 2x}$  [5]