

Name: _____

Quiz 6

Math 251

You have 20 minutes to complete this quiz and turn it in. When you're finished, first check your work if there is time remaining, then turn it in. You may use a scientific calculator, but not a graphing one, and you may not consult other people or the internet. **Show all your work.**

1. (4 points) Complete the equation below: if $\lim_{x \rightarrow 2} \frac{f(x)}{g(x)} = \frac{\infty}{\infty}$, then

$$\lim_{x \rightarrow 2} \frac{f(x)}{g(x)} =$$

2. (8 points) Find the critical points and the inflection points of $h(x) = x^3 - x$ on $[-10, 10]$.

3. (8 points) Evaluate $\lim_{t \rightarrow \infty} \frac{\ln(\frac{1}{t})}{e^t}$.