

Name: _____

Math 150

Quiz 3

Spring 2010

NO CALCULATORS

1. [5 points] Find $\lim_{x \rightarrow \infty} \frac{\sqrt{3x^2 + 2}}{4x}$.

2. [5 points] Find $\lim_{\theta \rightarrow 0} \frac{\tan 3\theta}{\theta}$.

3. [5 points] Find $\lim_{x \rightarrow \infty} \frac{x^2 + x + 3}{2x^2 + 5}$.

4. [5 points] Find $(x^4 + 3x^2 - 7x + 3)'$.

5. [5 points] Find $\left(\frac{1}{x} + \cos x\right)'$.

6. [5 points] Find $(x\sqrt{x})'$.