

Name:

Math 116 Quiz 1

January 17, 2012

Directions: WRITE YOUR NAME ON THIS QUIZ! Except where indicated, merely finding the answer to a problem is not enough to receive full credit; you must show how you arrived at that answer. DO NOT convert irrational numbers such as $\sqrt{3}$ or π into decimal approximations; just leave them as they are.

1) (8 points) Find the first derivative of $f(x) = 9x \sec(13x^4 - 2x + 7)$.

2) (6 points) Evaluate $\lim_{x \rightarrow 1} \frac{13x^2 + 26x - 39}{-5(x + 1)^2 + 20}$.

3) (7 points) Determine the value of $\int_0^2 7x^2\sqrt{x^3+1} \, dx$.

4) (4 points) Calculate the value of $\int_{-3}^3 \sqrt{9 - x^2} dx$.