MAT 296, Fall 2015, Quiz 6   **Score**

Name: _____ (PRINT IN BLOCK LETTERS)

Date: Oct 16, 2015

No calculators will be allowed on any quiz, midterm exam or on the final exam. Using or <u>having available</u> any calculator or other electronic device during a quiz, midterm exam or the final exam is a violation of the Academic Integrity Policy.

Show all the steps in your solutions.

1. Evaluate the integral $\displaystyle \int \frac{2x + 4}{x^3 + 4x}\,\mathrm{d}x$

2. Determine whether the following improper integral is convergent or divergent, and evaluate it if it is convergent. Be sure to show all the steps.

$$\int_0^\infty \frac{x^2}{(1+x^3)^{\frac{3}{2}}} \, \mathrm{d}x$$