

Math 132

Quiz 3 – March 27, 2012

Name _____

1. (2 points) For what real number values of p does $\int_{\pi}^{\infty} \frac{1}{x^p} dx$ converge?
(You may use any theorems we've proved in class.)

2. (4 points) Show that $\int_0^{\infty} \frac{\sin^2 x}{x^2 + 2} dx$ converges.

3. (4 points) Show that $\int_1^{\infty} \frac{1}{x + \sqrt{x}} dx$ diverges.