

Math 2260 Quiz 12

Name _____

Points will be deducted for untidy or disorganized answers

1. (4 points) Determine whether each *improper integral* is convergent or divergent. Evaluate those that are convergent.

(a)

$$\int_{10}^{\infty} \frac{1}{x^3} dx$$

(b)

$$\int_0^{\pi/2} \sec^2 x dx$$

2. (1 point) Use the *Comparison Test* to determine if

$$\int_1^{\infty} \frac{\sin^2 x}{x^2} dx$$

is convergent or divergent. If convergent you do NOT have to evaluate it!