

MATH 234 AL1 QUIZ #10

THURSDAY, NOVEMBER 29TH, 2007

Name: _____

Show all work for full credit.

Problem 1. (4 pts each) Determine if the following improper integrals converge.

(1) $\int_1^{\infty} \frac{2}{x^4} dx$

(2) $\int_2^{\infty} \frac{\ln x}{x} dx$

Problem 2. (2 pts each) Suppose that a random variable X has probability distribution $f(x) = \frac{x}{2}$ if $0 \leq x \leq 2$ and zero otherwise.

(1) Find the probability $P(1 \leq X \leq 2)$.

(2) Find the probability $P(X \leq 1)$.