

Name: \_\_\_\_\_

Math 232 Quiz 4

1. (10 pts) Evaluate the improper integral.

(a)  $\int_e^\infty \frac{1}{x(\ln x)^2} dx$

(b)  $\int_0^1 \frac{x}{\sqrt{1-x^2}} dx$

**2.** (10 pts) Find the area of the region enclosed by the given curves.

(a)  $y = x^2$ ,  $y = x + 2$

(b)  $x = 2y^2$ ,  $x = y^2 + 1$