

Math 125 Worksheet #6
July 24, 2007

1. Evaluate the following integrals using integration by parts.

(a) $\int_0^2 x e^{-x} dx$

(b) $\int x^2 (\ln x)^2 dx$

(c) $\int \sec^2 \sqrt{t} dt$ (Substitution and integration by parts will be needed.)

2. Evaluate the following trigonometric integrals.

(a) $\int \cos^3 x \sin^2 x dx$

(b) $\int \sin^2 \theta \cos^2 \theta d\theta$