

Math 276 Discussion Worksheet 3

1. Evaluate the following integrals.

a. $\int x e^{-x^2} dx$

b. $\int x^3 e^{-x^2} dx.$

2. Evaluate the following integrals.

a. $\int \arctan(x) dx$

b. $\int \arcsin(x) dx.$

3. Find the derivative of the following functions.

a. $f(x) = x^{1/x}$

b. $f(x) = x^{x^x}.$