

Name:

Section: 11 12 13

1. Find the following values.

(a) $\log_5(1/125)$

(b) $\arcsin(1/2)$

(c) $\sin(\arctan(2))$ [*Hint*: Draw a triangle.]

2. Differentiate the following functions.

(a) $f(x) = \log_{10}(\arccos x)$

(b) $y = \tan^{-1}(4x^2 - 1)$

(c) $f(x) = 2^{x^2} + \sec^{-1}(\ln x)$

3. Evaluate the following integrals.

(a) $\int \frac{3x}{1+x^4} dx$

(b) $\int \frac{1}{\sqrt{3-2x-x^2}} dx$ [*Hint*: Complete the square!]