MATH 2B/5B Prep: Derivatives

Facts to Know:

Table of Derivatives:

$\frac{\mathrm{d}}{\mathrm{d}x}c =$ $\frac{\mathrm{d}}{\mathrm{d}x}x^n =$

$\frac{\mathrm{d}}{\mathrm{d}x}\ln(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}e^x =$ $\frac{\mathrm{d}}{\mathrm{d}x}b^x =$

$\frac{\mathrm{d}}{\mathrm{d}x}\sin(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\cos(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\tan(x) =$

$\frac{\mathrm{d}}{\mathrm{d}x}\csc(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\sec(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\cot(x) =$

$\frac{\mathrm{d}}{\mathrm{d}x}\arcsin(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\arccos(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}\arctan(x) =$

Derivative Rules: $\frac{\mathrm{d}}{\mathrm{d}x}f(x) + g(x) =$ $\frac{\mathrm{d}}{\mathrm{d}x}cf(x) =$

Examples:

1. Find the derivative of $\sqrt{x}$.

2. Find the derivative of $3\sqrt{x} + \arctan(x)$.