

Section 1: Concepts and Terminology

Suppose $y = \phi(x)$ is a differentiable function. We know that $dy/dx = \phi'(x)$ is another (related) function.

For example, if $y = \cos(2x)$, then y is differentiable on $(-\infty, \infty)$. In fact,

$$\frac{dy}{dx} = -2 \sin(2x).$$

Even dy/dx is differentiable with $d^2y/dx^2 = -4 \cos(2x)$.

We didn't even get through this one slide!
We'll do it on Wednesday!