

# Many Derivatives

## Part 2

$$\frac{d}{dx} \left( \frac{x}{(x^2 + 1)^2} \right) = \frac{1 - 3x^2}{(x^2 + 1)^3}$$

$$\frac{d}{dx} \left( \frac{20}{1 + 5e^{-2x}} \right) = \frac{200e^{-2x}}{(1 + 5e^{-2x})^2}$$

$$\frac{d}{dx} \left( \sqrt{e^x} + e^{\sqrt{x}} \right) = \frac{1}{2} \left( \sqrt{e^x} + \frac{e^{\sqrt{x}}}{\sqrt{x}} \right)$$