

AP Calculus AB
Derivatives

Name: _____

Date: _____

Find y' for each of the following.

$$y = \frac{\sqrt{x}}{2} - \frac{2}{\sqrt{x}}$$

$$y = \sin x \cdot \cos x$$

$$y = \frac{\tan x}{x}$$

$$y = \sec(x^2)$$

$$y = \sin^{-1} \sqrt{x}$$

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

$$y = \sec^{-1}(e^x)$$

$$y = x \cdot e^x$$

$$y = e^x \cdot \ln x$$

$$y = \frac{\ln x}{x}$$

$$y = \ln \sqrt{x}$$

$$y = \ln(\sec x)$$

$$x + y^3 = xy$$

$$x - \sin x = y - \cos y$$

$$y = x^{1-x}$$

$$y = \frac{(x-1)^3 \cdot \sin^2 x}{\sqrt{1+x}}$$