

L6 (5.4 & 5.5) The Derivatives of the Primary Trig Functions

If $y = \sin(x)$, then $y' =$ _____

If $y = \cos(x)$ then $y' =$ _____

If $y = \tan(x)$, then $y' =$ _____

Ex1: Find y' & simplify.

$$\text{a) } y = \frac{5\sin(4x)}{2} \quad \text{b) } y = \frac{1}{\cos 6x} \quad \text{c) } y = \tan^2 \sqrt{x} \quad \text{d) } y = \frac{\sin \theta}{1 + \cos \theta}$$

Ex2: Find the slope of the tangent line to the curve
 $y = (\sin x - \cos x)^2$ at $x = 5\pi/4$.

Assigned Work:

p.256 #1, 2, 3, 5

p.260 #1, 2, 3, 4