

AP Calculus AB **Trig Quiz Review WS #5**

Write down your 6 trig derivative rules below!

1)

2)

3)

4)

5)

6)

1) If $y = -3x \sec(5 - \pi x^9)$ find $\frac{dy}{dx}$

2) Given $y = \frac{11 \cot(\pi x^5)}{6 \csc(ex)}$ Find y'

3. Given $y = -\frac{\sqrt[3]{\csc^{11}(3e^2 - \pi^2 x)}}{7}$ Find y'

4. $y \csc y = x \cot y - y + 9y^2 - 3x + 11\pi^2$ find $\frac{dy}{dx}$

5) If the position of a particle is $x(t) = 7\cot(5t)$

a) Find $a(t)$

b) find acceleration at $t = \pi/6$

6. Find the tangent line equation for $f(x) = 2\csc^3(7x)$ at $x = \frac{\pi}{6}$