

Derivatives of Trig Functions Day 1

I. Find the derivative.

1. $y = 3\sin(4x)$

2. $y = \tan(2x - x^3)$

3. $y = \cos(3x^3 + 2x^2 - 5)$

4. $y = \frac{8\sin x}{9 - 2\sin x}$

5. $y = \cos^3(4x)$

6. $y = \sin^6(x)$

7. $y = 4x^5 \cos(2x)$

8. $y = \sin^3 x \tan(4x)$

9. $y = \sin^2(3x - 2)$

II. Answer the following.

10. Find the slope of the line tangent for $f(x) = 2\sin(3x)$ at $x = \frac{\pi}{9}$