

MATH 251 - Derivative Quiz Four

1. $g(x) = \sqrt{3x} + \sqrt{3}$

$$\frac{d}{dx}g(x) =$$

2. $R(z) = (z^2 + 1) \cdot \cos(z^2 + 1)$

$$R'(z) =$$

3. $h(t) = f(g(t^2 - 1))$

$$f(3) = -2;$$

$$f(4) = 1;$$

$$g(3) = 4;$$

$$g(4) = -6;$$

$$f'(3) = 3;$$

$$f'(4) = -5.$$

$$g'(3) = 2;$$

$$g'(4) = 7.$$

$$h'(2) =$$

4. $f(x) = \sqrt[3]{x^3 + \pi^3}$

$$\frac{df}{dx} =$$

5. $R(\theta) = \frac{\sec^2(\theta)}{\theta + 1}$

$$\frac{dR}{d\theta} =$$