

MATH 251 - Derivative Quiz Two

1. $f(t) = \tan^5(t^3)$

$$\frac{d}{dt}f(t) =$$

2. $L(x) = \frac{x}{\pi + 4} - \frac{\pi}{x + 4} + \frac{\pi}{\pi + 4}$.

$$L'(x) =$$

3. $g(z) = z \cdot f(z^3 + 1)$

$$f(9) = -2;$$

$$f(12) = 1;$$

$$f'(9) = 3;$$

$$f'(12) = -5.$$

$$g'(2) =$$

4. $y(\theta) = \sec(\pi + \cos(2\pi\theta))$.

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

5. $R(y) = \frac{\sqrt[3]{2y+1}}{y^3+1}$

$$\frac{dR}{dy} =$$