

SECTION 3-6: THE CHAIN RULE

1. Recall Two Versions of the Chain Rule

2. Understanding what the “formulas” in the book are trying to communicate:

3. Find the derivatives.

(a) $g(\theta) = \sqrt[5]{\sin\left(\frac{\theta}{\pi}\right)}$

(b) $f(x) = (\sec(3x) + \csc(2x))^5$

(c) $g(x) = \frac{\cos(x^2+1)}{x^3+1}$

(d) $h(x) = (2x - 1)^3(2x + 1)^5$

4. Find all x -values where the tangent to $f(x) = \frac{5}{(8x-x^2)^3}$ is horizontal.

5. Find all x -values where the tangent to $f(x) = (4 - x)^3$ is parallel to $y + 6x = 8$.