

HW #2 – Slope Functions (Derivatives)

AB Calculus – Mr. Oberle

Find the slope function for each of the following functions using the algebraic technique from class.

1. $f(x) = x^2 + 5$.

2. $g(x) = 5x - 3$

3. $h(x) = 2x^3 - 3x$.

4. $r(x) = \sqrt{2x+1}$.

Find the slope function for each of the following functions using the algebraic technique from class, and then use the slope function to find the tangent line at the given point.

5. $h(x) = x - x^2$ at $x = 3$

6. $f(x) = \frac{1}{x}$ at $x = 2$.