

Increasing and Decreasing Functions

For a differentiable function f

- A. If $f'(x) > 0$ in (a, b) , then f is increasing on (a, b) \longrightarrow Tangent line has a positive slope
- B. If $f'(x) < 0$ in (a, b) , then f is decreasing on (a, b) \longrightarrow Tangent line has a negative slope
- C. If $f'(x) = 0$ in (a, b) , then f is constant on (a, b) \longrightarrow Tangent line has a zero slope (horizontal)