5 The Behavior of a Function and its Tangent
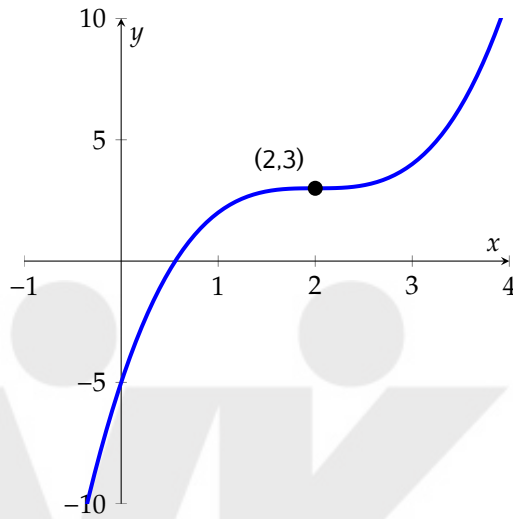
1. For the graph shown below, identify the values of x when it is:
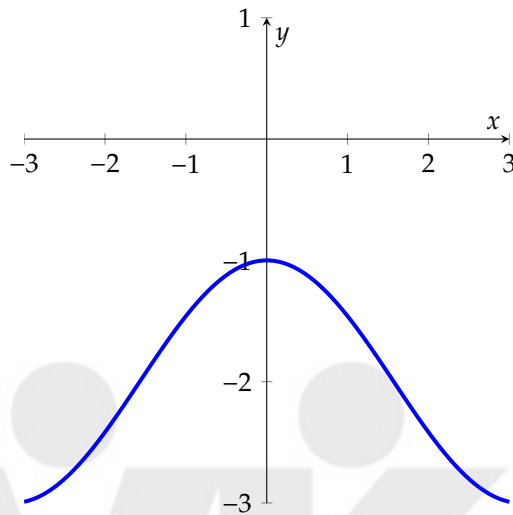

a. Increasing

b. Decreasing

c. Stationary

2. For what values of x is the function increasing or decreasing?

a. $f(x) = 2x^2 + 2$

b. $f(x) = x^3 - 2$

3. For the graph shown below, identify the values of x when it is:

a. Increasing

b. Decreasing

c. Stationary

4. For what values of x is the function increasing or decreasing?

a. $g(x) = \dfrac{1}{x}$

b. $g(x) = |x|$

5. For what values of x is the function increasing or decreasing?

a. $f(x) = \dfrac{1}{x^2 + 2}$

b. $f(x) = x^4$