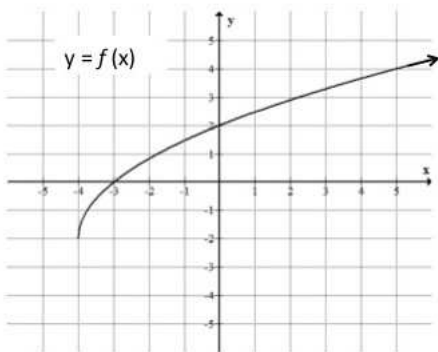


Section 8.1 Functions and Representations of Functions

1. True or False: A function is a relationship in which every element of the range corresponds to exactly **one** element of the domain.

- (a) True, and I am very confident
- (b) True, but I am not very confident
- (c) False, but I am not very confident
- (d) False, and I am very confident

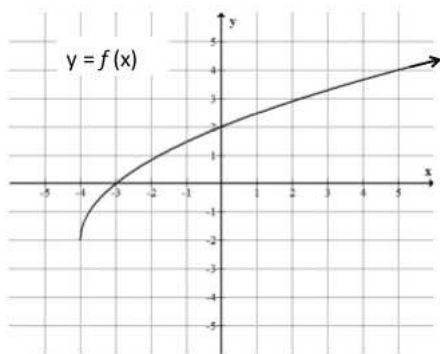
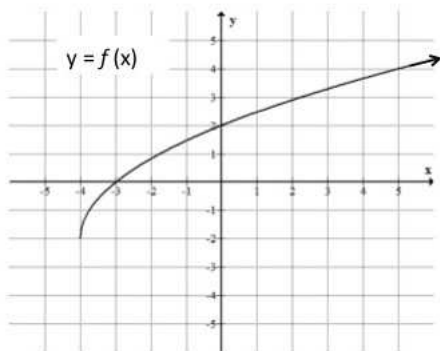
2. What is the value of $f(0)$?



- (a) -3
- (b) 0
- (c) 2
- (d) 3

3. What is the domain of the function?

- (a) $(-\infty, \infty)$
- (b) $[-4, \infty)$
- (c) $[-3, \infty)$



(d) $[-2, \infty)$

4. What is the range of the function?

- (a) $(-\infty, \infty)$
- (b) $[-4, \infty)$
- (c) $[-3, \infty)$
- (d) $[-2, \infty)$

5. Find the domain of the function $f(x) = \sqrt{x+3}$.

- (a) $(-\infty, \infty)$
- (b) $[0, \infty)$
- (c) $(-3, \infty)$
- (d) $[-3, \infty)$

6. Let $f(x) = \begin{cases} 2x + 5 & \text{if } x \leq -1 \\ x^2 - 1 & \text{if } x > -1 \end{cases}$ What is the value of $f(3) + f(-2)$?

- (a) 9
- (b) 11
- (c) 12
- (d) 18