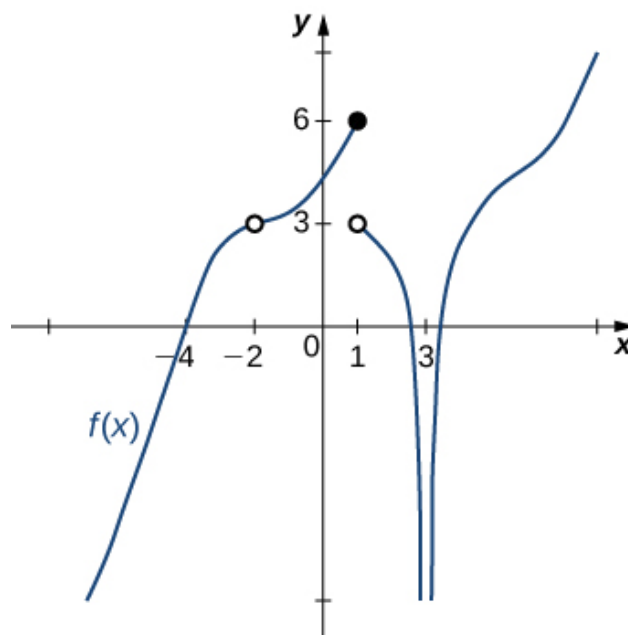


1. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow -8^-} \frac{6}{(x-8)^6} + 5$$

- A. $f(-8)$
- B. $-\infty$
- C. ∞
- D. The limit does not exist
- E. None of the above

2. For the graph below, evaluate the limit: $\lim_{x \rightarrow -4} f(x)$.



- A. $-\infty$
- B. -6
- C. 0
- D. The limit does not exist
- E. None of the above

3. To estimate the one-sided limit of the function below as x approaches 4 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{4}{x} - 1}{x - 4}$$

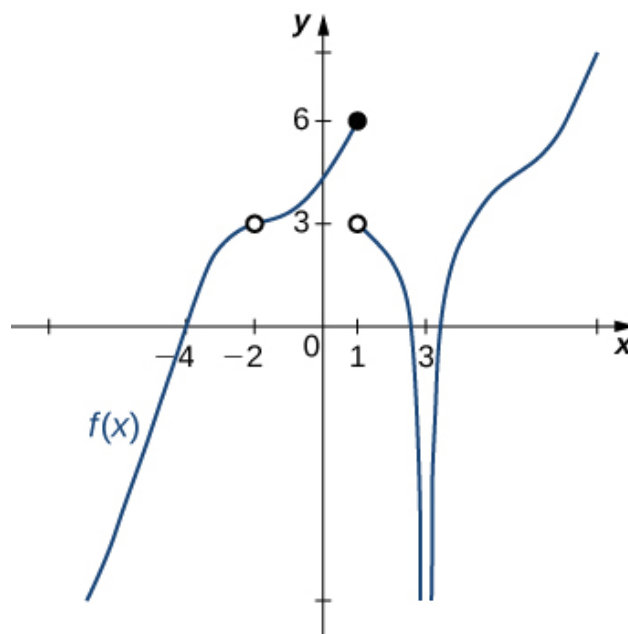
- A. $\{3.9000, 3.9900, 3.9990, 3.9999\}$
- B. $\{4.0000, 3.9000, 3.9900, 3.9990\}$
- C. $\{4.1000, 4.0100, 4.0010, 4.0001\}$
- D. $\{3.9000, 3.9900, 4.0100, 4.1000\}$
- E. $\{4.0000, 4.1000, 4.0100, 4.0010\}$

-
4. Based on the information below, which of the following statements is always true?

$f(x)$ approaches 3.476 as x approaches 1.

- A. $f(1)$ is close to or exactly 3
- B. $f(3)$ is close to or exactly 1
- C. $f(3) = 1$
- D. $f(1) = 3$
- E. None of the above are always true.

-
5. For the graph below, evaluate the limit: $\lim_{x \rightarrow 1} f(x)$.



- A. 3
- B. 6
- C. $-\infty$
- D. The limit does not exist
- E. None of the above

6. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 4^+} \frac{7}{(x-4)^9} + 9$$

- A. $-\infty$
- B. $f(4)$
- C. ∞
- D. The limit does not exist
- E. None of the above

7. To estimate the one-sided limit of the function below as x approaches 3 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{3}{x} - 1}{x - 3}$$

- A. $\{3.0000, 2.9000, 2.9900, 2.9990\}$
- B. $\{3.1000, 3.0100, 3.0010, 3.0001\}$
- C. $\{2.9000, 2.9900, 2.9990, 2.9999\}$
- D. $\{2.9000, 2.9900, 3.0100, 3.1000\}$
- E. $\{3.0000, 3.1000, 3.0100, 3.0010\}$

8. Based on the information below, which of the following statements is always true?

$f(x)$ approaches 7.145 as x approaches 2.

- A. $f(x) = 2$ when x is close to 7.145
- B. $f(x) = 7.145$ when x is close to 2
- C. $f(x)$ is close to or exactly 7.145 when x is close to 2
- D. $f(x)$ is close to or exactly 2 when x is close to 7.145
- E. None of the above are always true.

9. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 8} \frac{\sqrt{9x - 23} - 7}{7x - 56}$$

- A. 0.429
- B. ∞
- C. 0.010
- D. 0.071
- E. None of the above

10. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 7} \frac{\sqrt{4x - 12} - 4}{9x - 63}$$

- A. 0.014
 - B. 0.125
 - C. 0.056
 - D. ∞
 - E. None of the above
-