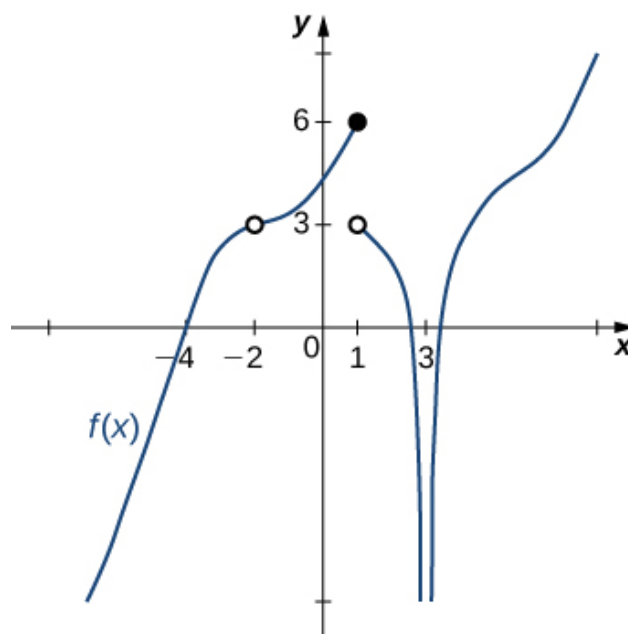


1. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 7^-} \frac{-9}{(x-7)^3} + 2$$

- A. ∞
- B. $f(7)$
- C. $-\infty$
- D. The limit does not exist
- E. None of the above

2. For the graph below, find the value(s) a that makes the statement true:
 $\lim_{x \rightarrow a} f(x)$ does not exist.



- A. 1
- B. -2
- C. 3
- D. Multiple a make the statement true.
- E. No a make the statement true.

3. To estimate the one-sided limit of the function below as x approaches 5 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{5}{x} - 1}{x - 5}$$

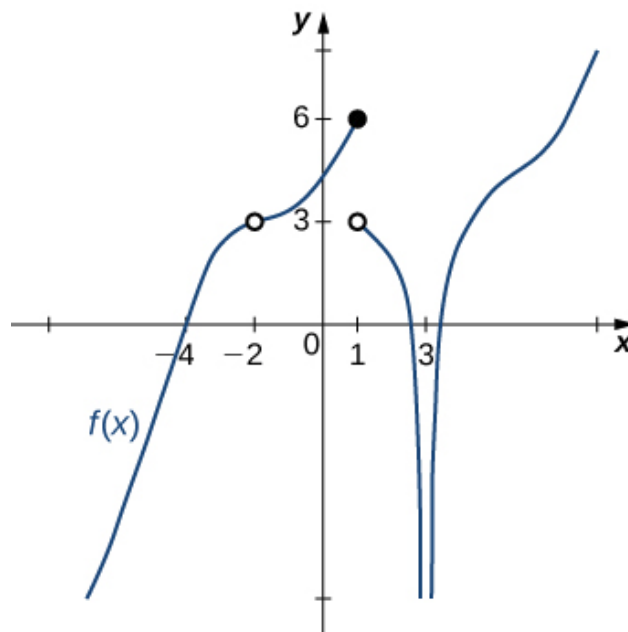
- A. $\{5.0000, 4.9000, 4.9900, 4.9990\}$
- B. $\{5.0000, 5.1000, 5.0100, 5.0010\}$
- C. $\{4.9000, 4.9900, 4.9990, 4.9999\}$
- D. $\{4.9000, 4.9900, 5.0100, 5.1000\}$
- E. $\{5.1000, 5.0100, 5.0010, 5.0001\}$

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

$f(x)$ approaches 16.016 as x approaches 0.

- A. $f(x)$ is close to or exactly 16.016 when x is close to 0
- B. $f(x) = 16.016$ when x is close to 0
- C. $f(x) = 0$ when x is close to 16.016
- D. $f(x)$ is close to or exactly 0 when x is close to 16.016
- E. None of the above are always true.

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



- A. -2
- B. $-\infty$
- C. 3
- 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.

$$\lim_{x \rightarrow -5^+} \frac{-1}{(x+5)^3} + 5$$

- A. $-\infty$
- B. ∞
- C. $f(-5)$
- 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 9 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{9}{x} - 1}{x - 9}$$

- A. {9.1000, 9.0100, 9.0010, 9.0001}
 - B. {9.0000, 9.1000, 9.0100, 9.0010}
 - C. {8.9000, 8.9900, 8.9990, 8.9999}
 - D. {9.0000, 8.9000, 8.9900, 8.9990}
 - E. {8.9000, 8.9900, 9.0100, 9.1000}
-

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

As x approaches ∞ , $f(x)$ approaches 16.683.

- A. $f(x)$ is undefined when x is large enough.
 - B. x is undefined when $f(x)$ is large enough.
 - C. $f(x)$ is close to or exactly ∞ when x is large enough.
 - D. $f(x)$ is close to or exactly 16.683 when x is large enough.
 - E. None of the above are always true.
-

9. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 5} \frac{\sqrt{9x - 29} - 4}{2x - 10}$$

- A. 0.125
- B. 0.562
- C. ∞
- D. 0.062
- E. None of the above

10. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 6} \frac{\sqrt{7x - 17} - 5}{5x - 30}$$

- A. 0.529
 - B. 0.100
 - C. ∞
 - D. 0.020
 - E. None of the above
-