

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

$$\lim_{x \rightarrow -4^-} \frac{1}{(x-4)^8} + 8$$

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

2. To estimate the one-sided limit of the function below as x approaches 1 from the left, which of the following sets of numbers should you use?

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

- A. $\{0.9000, 0.9900, 1.0100, 1.1000\}$
 - B. $\{0.9000, 0.9900, 0.9990, 0.9999\}$
 - C. $\{1.0000, 1.1000, 1.0100, 1.0010\}$
 - D. $\{1.0000, 0.9000, 0.9900, 0.9990\}$
 - E. $\{1.1000, 1.0100, 1.0010, 1.0001\}$
-

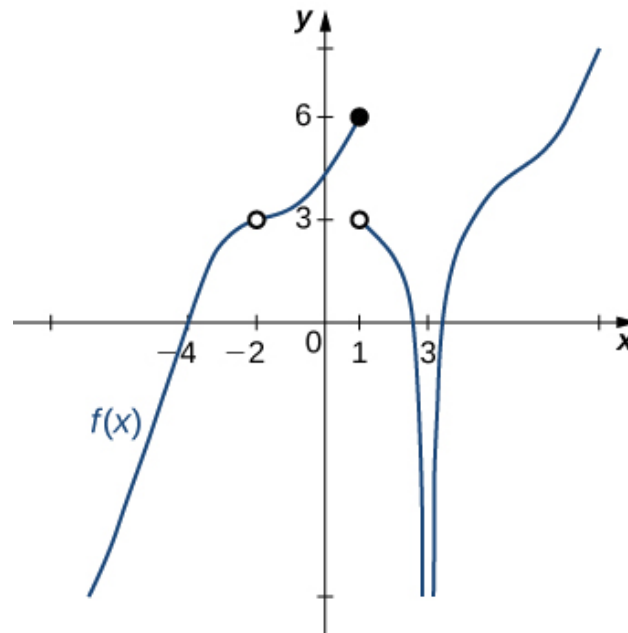
3. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

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

- A. $-\infty$
- B. ∞
- C. $f(5)$
- D. The limit does not exist

E. None of the above

4. For the graph below, find the value(s) a that makes the statement true:
 $\lim_{x \rightarrow a} f(x) = 0$.



- A. -4
B. 0
C. 3
D. Multiple a make the statement true.
E. No a make the statement true.

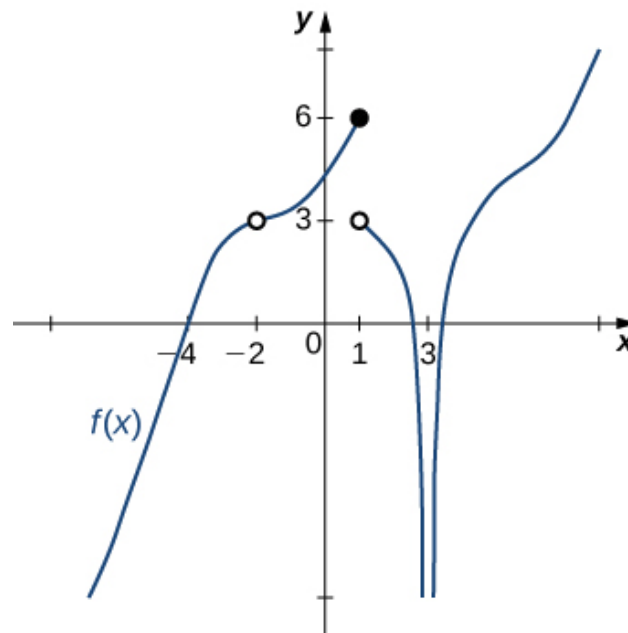
5. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 8} \frac{\sqrt{8x - 28} - 6}{6x - 48}$$

- A. 0.471
B. 0.014
C. 0.083

- D. ∞
- E. None of the above

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



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

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

As x approaches 7, $f(x)$ approaches 0.885.

- A. $f(7)$ is close to or exactly 0
- B. $f(0) = 7$
- C. $f(0)$ is close to or exactly 7

- D. $f(7) = 0$
E. None of the above are always true.
-

8. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 9} \frac{\sqrt{7x - 47} - 4}{3x - 27}$$

- A. 0.125
B. 0.292
C. 0.882
D. ∞
E. None of the above
-

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

$f(x)$ approaches 19.882 as x approaches 3.

- A. $f(19) = 3$
B. $f(3)$ is close to or exactly 19
C. $f(3) = 19$
D. $f(19)$ is close to or exactly 3
E. None of the above are always true.
-

10. To estimate the one-sided limit of the function below as x approaches 10 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{10}{x} - 1}{x - 10}$$

- A. $\{10.0000, 10.1000, 10.0100, 10.0010\}$
B. $\{9.9000, 9.9900, 9.9990, 9.9999\}$

- C. $\{10.0000, 9.9000, 9.9900, 9.9990\}$
 - D. $\{10.1000, 10.0100, 10.0010, 10.0001\}$
 - E. $\{9.9000, 9.9900, 10.0100, 10.1000\}$
-