

1. 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. $\{3.0000, 3.1000, 3.0100, 3.0010\}$
 - B. $\{2.9000, 2.9900, 2.9990, 2.9999\}$
 - C. $\{3.0000, 2.9000, 2.9900, 2.9990\}$
 - D. $\{2.9000, 2.9900, 3.0100, 3.1000\}$
 - E. $\{3.1000, 3.0100, 3.0010, 3.0001\}$
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2. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 6^+} \frac{-6}{(x + 6)^8} + 9$$

- A. $-\infty$
 - B. ∞
 - C. $f(6)$
 - D. The limit does not exist
 - E. None of the above
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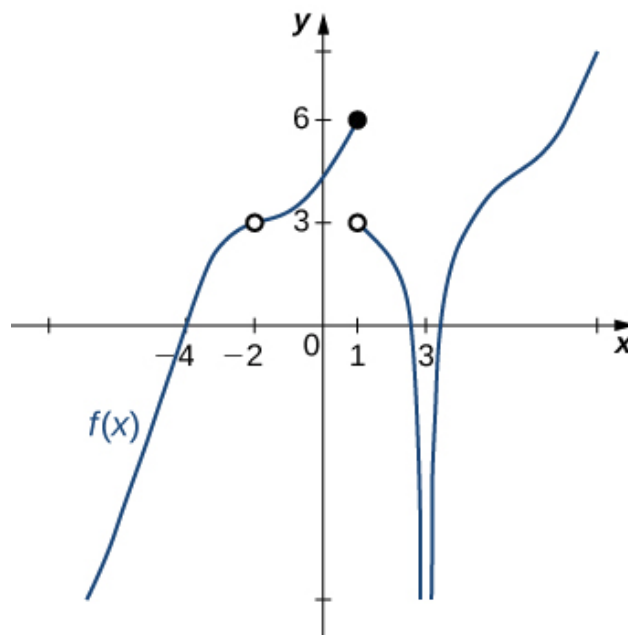
3. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 2^+} \frac{-8}{(x - 2)^3} + 4$$

- A. $-\infty$
- B. ∞
- C. $f(2)$
- D. The limit does not exist

E. None of the above

4. For the graph below, evaluate the limit: $\lim_{x \rightarrow 3} f(x)$.



- A. 1
 - B. $-\infty$
 - C. -2
 - D. The limit does not exist
 - E. None of the above
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5. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 9} \frac{\sqrt{6x - 29} - 5}{4x - 36}$$

- A. 0.612
- B. 0.100
- C. ∞
- D. 0.150

E. None of the above

6. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 6} \frac{\sqrt{5x - 5} - 5}{7x - 42}$$

A. 0.100

B. 0.071

C. 0.014

D. ∞

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. $\{2.9000, 2.9900, 3.0100, 3.1000\}$

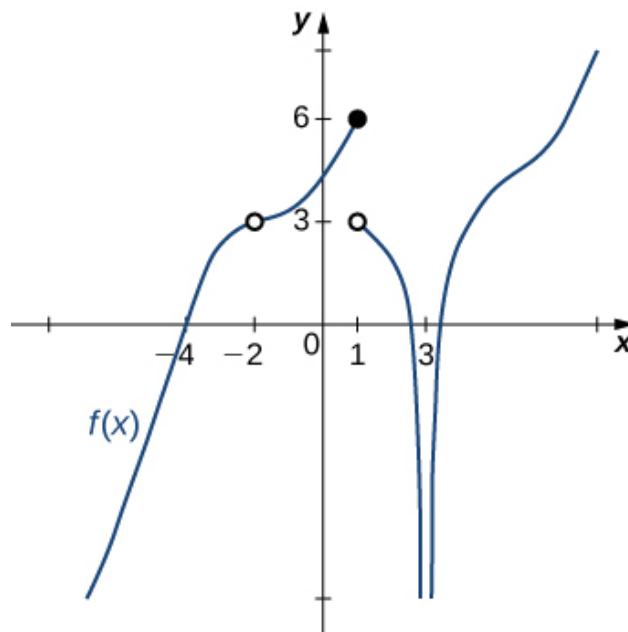
B. $\{3.1000, 3.0100, 3.0010, 3.0001\}$

C. $\{2.9000, 2.9900, 2.9990, 2.9999\}$

D. $\{3.0000, 2.9000, 2.9900, 2.9990\}$

E. $\{3.0000, 3.1000, 3.0100, 3.0010\}$

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



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

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

As x approaches 0, $f(x)$ approaches 9.364.

- A. $f(0)$ is close to or exactly 9
- B. $f(0) = 9$
- C. $f(9) = 0$
- D. $f(9)$ is close to or exactly 0
- E. None of the above are always true.

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

$f(x)$ approaches 1.782 as x approaches 5.

- A. $f(5) = 1$
 - B. $f(5)$ is close to or exactly 1
 - C. $f(1)$ is close to or exactly 5
 - D. $f(1) = 5$
 - E. None of the above are always true.
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