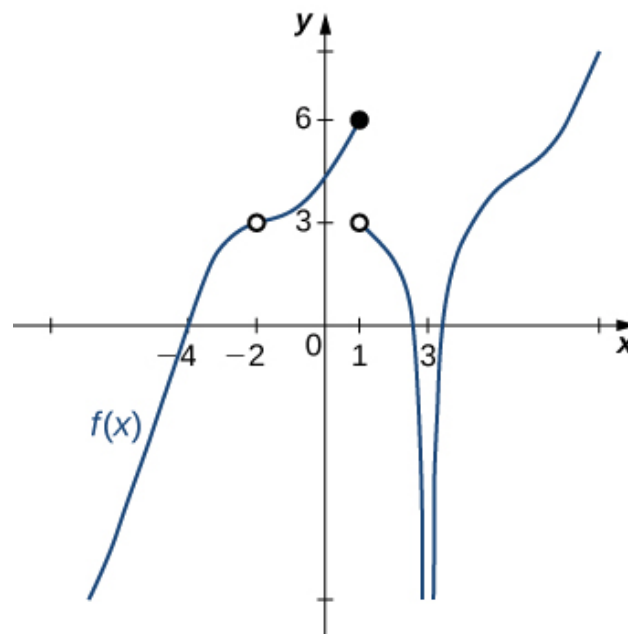


1. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 5} \frac{\sqrt{6x - 5} - 5}{4x - 20}$$

- A. ∞
- B. 0.612
- C. 0.100
- D. 0.150
- E. None of the above

-
2. For the graph below, find the value(s) a that makes the statement true:
 $\lim_{x \rightarrow a} f(x) = 3$.



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

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

As

x approaches ∞ , *f(x) approaches* 7.896.

- A. *f(x)* is undefined when *f(x)* is large enough.
- B. *f(x)* is close to or exactly 7.896 when *x* is large enough.
- C. *f(x)* is undefined when *x* is large enough.
- D. *f(x)* is close to or exactly ∞ when *x* is large enough.
- E. None of the above are always true.

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

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

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

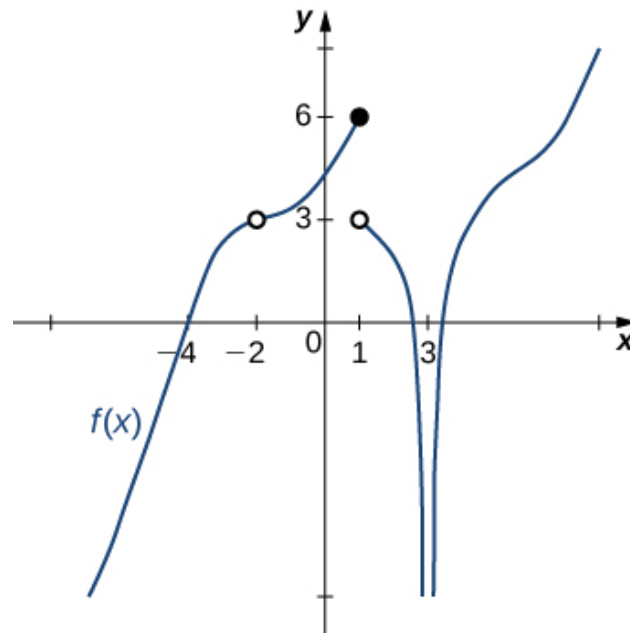
-
5. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 7} \frac{\sqrt{8x - 31} - 5}{2x - 14}$$

- A. ∞
- B. 0.400

- C. 1.414
- D. 0.100
- E. None of the above

6. 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.

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

$$\lim_{x \rightarrow 1^-} \frac{8}{(x-1)^9} + 7$$

- A. $-\infty$

- B. $f(1)$
 - C. ∞
 - D. The limit does not exist
 - E. None of the above
-

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

$$\lim_{x \rightarrow 7^+} \frac{-5}{(x-7)^8} + 8$$

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

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

As

x approaches ∞ , $f(x)$ approaches 7.479.

- A. x is undefined when $f(x)$ is large enough.
 - B. $f(x)$ is close to or exactly 7.479 when x is large enough.
 - C. $f(x)$ is undefined when x is large enough.
 - D. $f(x)$ is close to or exactly ∞ when x is large enough.
 - E. None of the above are always true.
-

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

$$\frac{\frac{2}{x} - 1}{x - 2}$$

- A. {1.9000, 1.9900, 1.9990, 1.9999}
 - B. {2.0000, 2.1000, 2.0100, 2.0010}
 - C. {1.9000, 1.9900, 2.0100, 2.1000}
 - D. {2.0000, 1.9000, 1.9900, 1.9990}
 - E. {2.1000, 2.0100, 2.0010, 2.0001}
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