

1. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 6} \frac{\sqrt{9x - 5} - 7}{5x - 30}$$

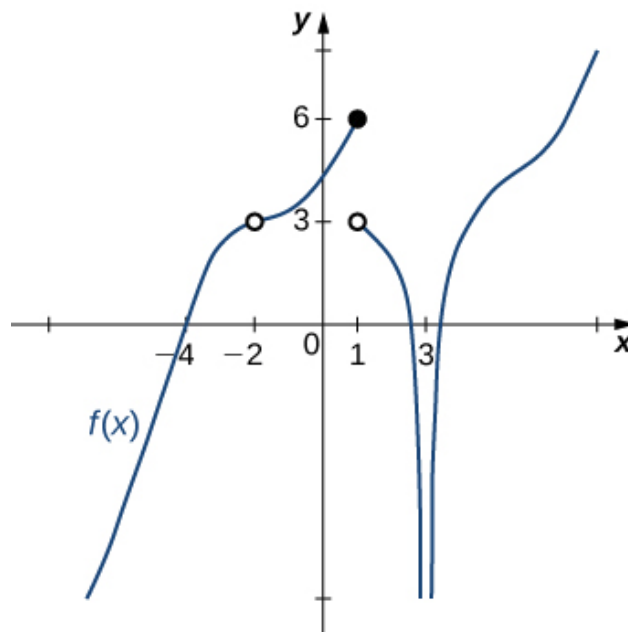
- A. 0.014
 - B. ∞
 - C. 0.129
 - D. 0.071
 - E. None of the above
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2. Based on the information below, which of the following statements is always true?

$f(x)$ approaches 4.73 as x approaches 3.

- A. $f(x) = 3$ when x is close to 4.73
 - B. $f(x)$ is close to or exactly 3 when x is close to 4.73
 - C. $f(x)$ is close to or exactly 4.73 when x is close to 3
 - D. $f(x) = 4.73$ when x is close to 3
 - E. None of the above are always true.
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3. For the graph below, find the value(s) a that makes the limit true:
 $\lim_{x \rightarrow a} f(x)$ does not exist.



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

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

$$\lim_{x \rightarrow 1^-} \frac{2}{(x+1)^6} + 8$$

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

5. 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. $\{0.9000, 0.9900, 0.9990, 0.9999\}$
 - B. $\{1.0000, 0.9000, 0.9900, 0.9990\}$
 - C. $\{1.0000, 1.1000, 1.0100, 1.0010\}$
 - D. $\{0.9000, 0.9900, 1.0100, 1.1000\}$
 - E. $\{1.1000, 1.0100, 1.0010, 1.0001\}$
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