

1. To estimate the one-sided limit of the function below as  $x$  approaches 6 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{6}{x} - 1}{x - 6}$$

- A.  $\{5.9000, 5.9900, 5.9990, 5.9999\}$
  - B.  $\{6.1000, 6.0100, 6.0010, 6.0001\}$
  - C.  $\{6.0000, 6.1000, 6.0100, 6.0010\}$
  - D.  $\{6.0000, 5.9000, 5.9900, 5.9990\}$
  - E.  $\{5.9000, 5.9900, 6.0100, 6.1000\}$
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2. Based on the information below, which of the following statements is always true?

$f(x)$  approaches 2.96 as  $x$  approaches 0.

- A.  $f(2) = 0$
  - B.  $f(0) = 2$
  - C.  $f(0)$  is close to or exactly 2
  - D.  $f(2)$  is close to or exactly 0
  - E. None of the above are always true.
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3. Evaluate the one-sided limit of the function  $f(x)$  below, if possible.

$$\lim_{x \rightarrow -6^-} \frac{2}{(x - 6)^5} + 5$$

- A.  $\infty$
- B.  $-\infty$
- C.  $f(-6)$
- D. The limit does not exist

E. None of the above

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4. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 8} \frac{\sqrt{5x - 15} - 5}{7x - 56}$$

A. 0.014

B.  $\infty$

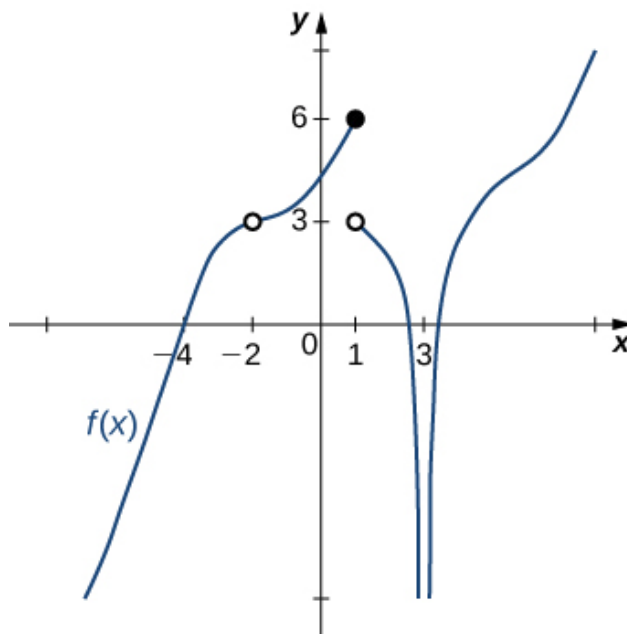
C. 0.100

D. 0.319

E. None of the above

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



A. 3

B. 1

C. -2

D. Multiple  $a$  make the limit true.

E. No  $a$  make the limit true.

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