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

$$\lim_{x \to 8^-} \frac{3}{(x-8)^5} + 5$$

A. $-\infty$

B. $\infty$

C. $f(8)$

D. The limit does not exist

E. None of the above

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

$$f(x) \textit{ approaches } 4.19 \textit{ as } x \textit{ approaches } \infty.$$

A. $f(x)$ is close to or exactly $\infty$ when $x$ is large enough.

B. $f(x)$ is close to or exactly 4.19 when $x$ is large enough.

C. $f(x)$ is undefined when $x$ is large enough.

D. $f(x)$ is undefined when $f(x)$ is large enough.

E. None of the above are always true.

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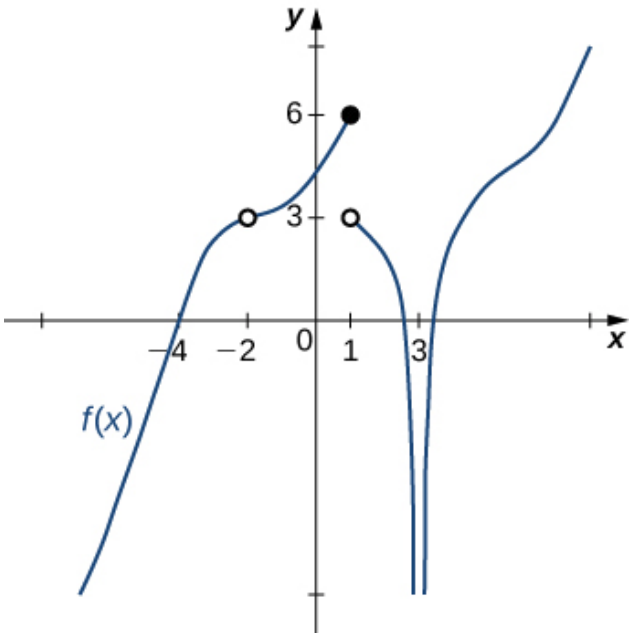
3. For the graph below, evaluate the limit: $\lim_{x \to -2} f(x)$.




A. $-\infty$

B. $-2$

C. 3

D. The limit does not exist

E. None of the above

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4. Evaluate the limit below, if possible.

$$\lim_{x \to 4} \frac{\sqrt{6x - 8} - 4}{7x - 28}$$

A. $\infty$

B. 0.018

C. 0.350

D. 0.125

E. None of the above

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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. $\{1.0000, 0.9000, 0.9900, 0.9990\}$

B. $\{1.1000, 1.0100, 1.0010, 1.0001\}$

C. $\{0.9000, 0.9900, 0.9990, 0.9999\}$

D. $\{0.9000, 0.9900, 1.0100, 1.1000\}$

E. $\{1.0000, 1.1000, 1.0100, 1.0010\}$