1. Evaluate the limit below, if possible.

$$\lim_{x\to 9} \frac{\sqrt{7x-14}-7}{2x-18}$$

A. ∞

B. 0.071

C. 0.036

D. 1.323

E. None of the above

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2. To estimate the one-sided limit of the function below as x approaches 8 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{8}{x}-1}{x-8}$$

A. $\{8.1000, 8.0100, 8.0010, 8.0001\}$

B. $\{7.9000, 7.9900, 8.0100, 8.1000\}$

C. $\{7.9000, 7.9900, 7.9990, 7.9999\}$

D. $\{8.0000, 8.1000, 8.0100, 8.0010\}$

E. $\{8.0000, 7.9000, 7.9900, 7.9990\}$

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

$$\lim_{x\to 2^-} \frac{4}{(x+2)^4} + 9$$

A. $f(2)$

B. $-\infty$

C. ∞

D. The limit does not exist

E. None of the above

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

$$\lim_{x \to -3^-} \frac{-1}{(x-3)^5} + 6$$

A. $-\infty$

B. ∞

C. $f(-3)$

D. The limit does not exist

E. None of the above

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

$$\frac{\frac{4}{x} - 1}{x - 4}$$

A. $\{4.0000, 3.9000, 3.9900, 3.9990\}$

B. $\{4.1000, 4.0100, 4.0010, 4.0001\}$

C. $\{3.9000, 3.9900, 3.9990, 3.9999\}$

D. $\{3.9000, 3.9900, 4.0100, 4.1000\}$

E. $\{4.0000, 4.1000, 4.0100, 4.0010\}$

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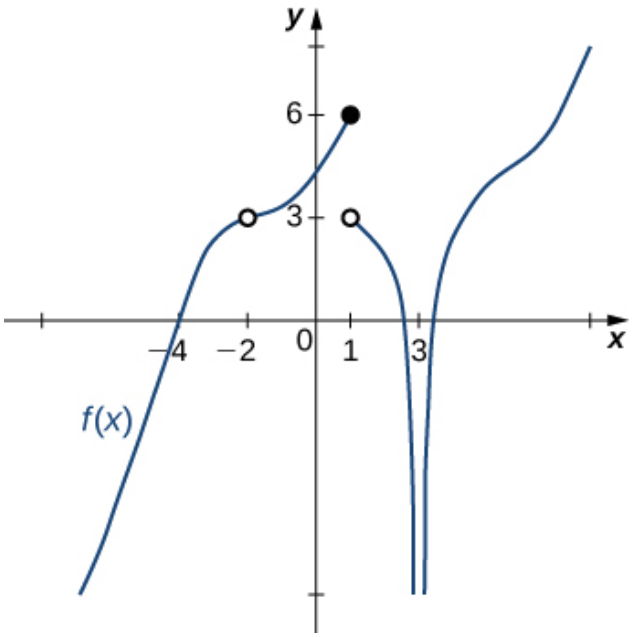
6. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x) = 3$.



A. 1

B. $-\infty$

C. -2

D. Multiple a make the statement true.

E. No a make the statement true.

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

f(x)$approaches 7.761 as x approaches 2.$

A. $f(x)$ is close to or exactly 7.761 when x is close to 2

B. $f(x) = 7.761$ when x is close to 2

C. $f(x)$ is close to or exactly 2 when x is close to 7.761

D. $f(x) = 2$ when x is close to 7.761

E. None of the above are always true.

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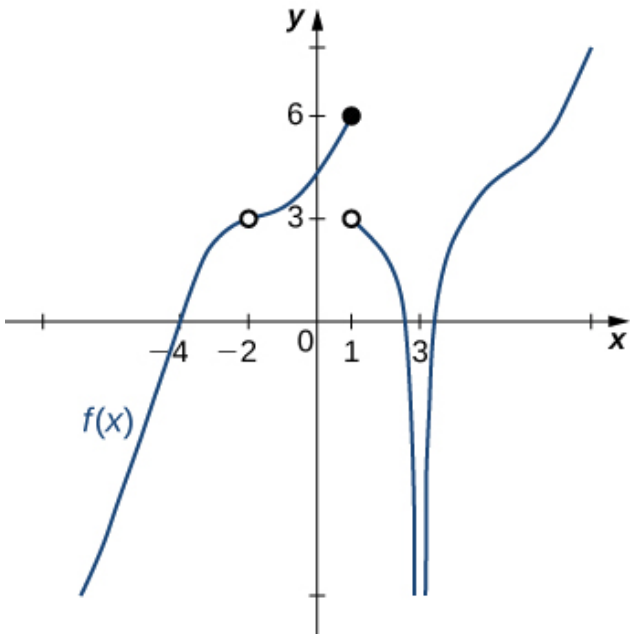
8. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x) = -\infty$.



A. $-\infty$

B. -2

C. 3

D. Multiple a make the statement true.

E. No a make the statement true.

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9. Evaluate the limit below, if possible.

$$\lim_{x \to 9} \frac{\sqrt{9x - 45} - 6}{6x - 54}$$

A. 0.500

B. ∞

C. 0.083

D. 0.014

E. None of the above

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

$$As$$

x*approaches*∞, $f(x)$ approaches 1.508.

A. $f(x)$ is close to or exactly 1.508 when x is large enough.

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

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

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

E. None of the above are always true.