1. Evaluate the limit below, if possible.

$$\lim_{x\to 9} \frac{\sqrt{5x-9}-6}{9x-81}$$

A. ∞

B. 0.248

C. 0.009

D. 0.083

E. None of the above

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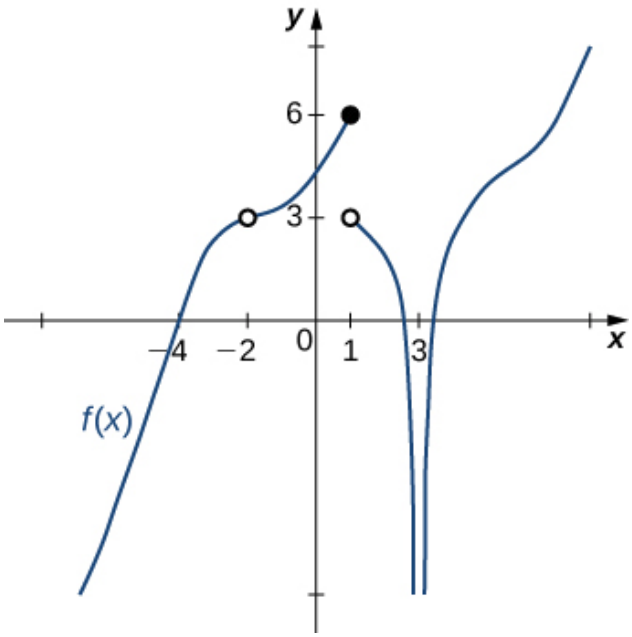
2. For the graph below, find the value(s) a that makes the statement true: $\lim_{x\to a} f(x) = 3$.



A. 1

B. $-\infty$

C. -2

D. Multiple a make the statement true.

E. No a make the statement true.

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

$$As$$

x*approaches*∞, $f(x)$ approaches 9.976.

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

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

C. $f(x)$ is close to or exactly 9.976 when x is large enough.

D. $f(x)$ is undefined 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 3 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{3}{x} - 1}{x - 3}$$

A. $\{2.9000, 2.9900, 3.0100, 3.1000\}$

B. $\{3.0000, 2.9000, 2.9900, 2.9990\}$

C. $\{3.1000, 3.0100, 3.0010, 3.0001\}$

D. $\{2.9000, 2.9900, 2.9990, 2.9999\}$

E. $\{3.0000, 3.1000, 3.0100, 3.0010\}$

5. Evaluate the limit below, if possible.

$$\lim_{x \to 8} \frac{\sqrt{6x - 32} - 4}{8x - 64}$$

A. ∞

B. 0.094

C. 0.125

D. 0.016

E. None of the above

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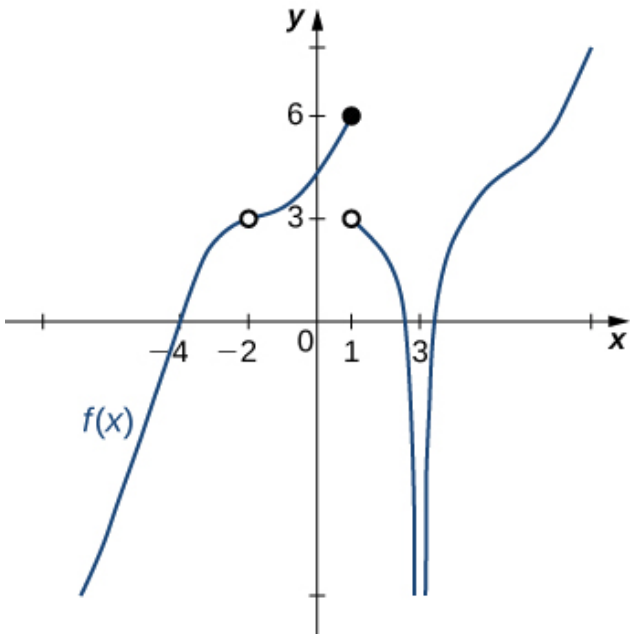
6. For the graph below, find the value(s) a that makes the statement true: $\lim_{x \to a} f(x) = 3$.



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

$$\lim_{x \to -8^+} \frac{-1}{(x-8)^9} + 5$$

A. $f(-8)$

B. ∞

C. $-\infty$

D. The limit does not exist

E. None of the above

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

$$\lim_{x \to -3^+} \frac{-2}{(x+3)^3} + 4$$

A. $f(-3)$

B. ∞

C. $-\infty$

D. The limit does not exist

E. None of the above

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

$$As$$

x*approaches*0,f(x)*approaches*∞.

A. $f(x)$ is undefined when x is close to or exactly 0.

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

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

D. $f(x)$ is close to or exactly 0 when x is large enough.

E. None of the above are always true.

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10. To estimate the one-sided limit of the function below as x approaches 9 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{9}{x} - 1}{x - 9}$$

A. $\{8.9000, 8.9900, 8.9990, 8.9999\}$

B. $\{9.0000, 8.9000, 8.9900, 8.9990\}$

C. $\{8.9000, 8.9900, 9.0100, 9.1000\}$

D. $\{9.0000, 9.1000, 9.0100, 9.0010\}$

E. $\{9.1000, 9.0100, 9.0010, 9.0001\}$