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

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

A. $-\infty$

B. $f(2)$

C. ∞

D. The limit does not exist

E. None of the above

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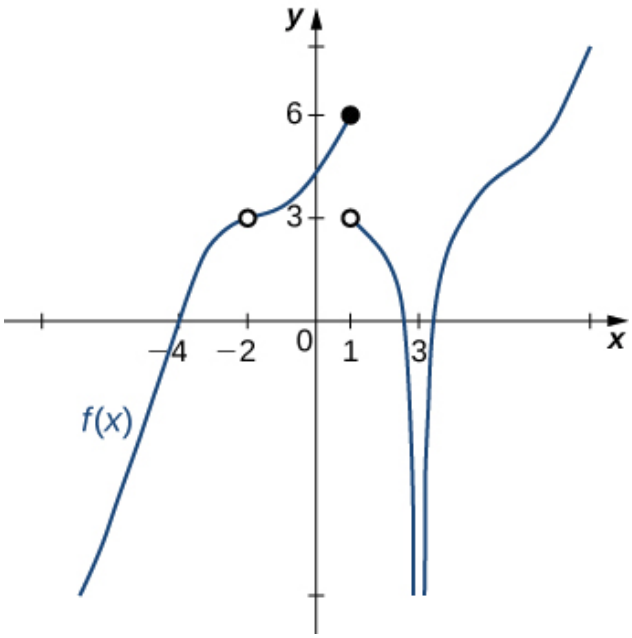
2. For the graph below, find the value(s) a that makes the limit true: $\lim_{x\to a} f(x) = 0$.



A. 3

B. -4

C. 0

D. Multiple a make the limit true.

E. No a make the limit true.

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

$$As\ x\ approaches\ 2,\ f(x)\ approaches\ \infty.$$

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

B. $f(x)$ is close to or exactly 2 when x is large enough.

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

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

E. None of the above are always true.

4. Evaluate the limit below, if possible.

$$\lim_{x\to 9} \frac{\sqrt{7x-14}-7}{5x-45}$$

A. 0.014

B. 0.071

C. 0.529

D. ∞

E. None of the above

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

$$\frac{\frac{2}{x}-1}{x-2}$$

A. $\{2.0000, 2.1000, 2.0100, 2.0010\}$

B. $\{2.0000, 1.9000, 1.9900, 1.9990\}$

C. $\{1.9000, 1.9900, 1.9990, 1.9999\}$

D. $\{1.9000, 1.9900, 2.0100, 2.1000\}$

E. $\{2.1000, 2.0100, 2.0010, 2.0001\}$
