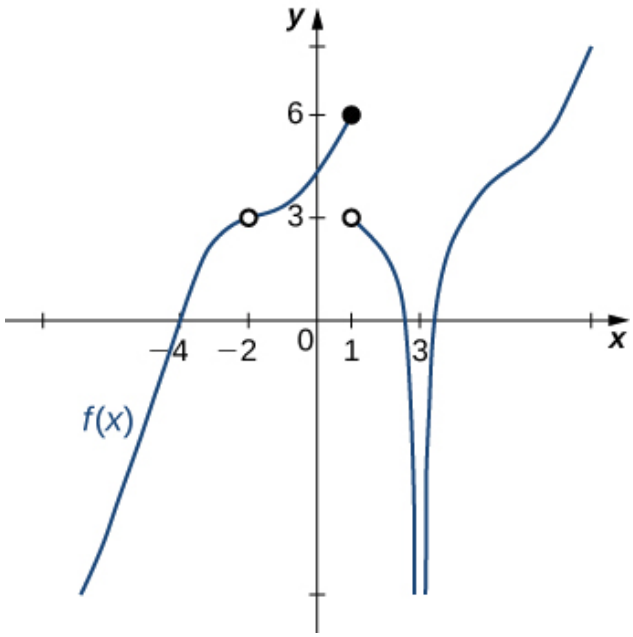
1. For the graph below, find the value(s) a that makes the limit true: $\lim_{x \to a} f(x)$ does not exist.



A. 1

B. 3

C. -2

D. Multiple a make the limit true.

E. No a make the limit true.

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

$$f(x) \text{ approaches } 13.42 \text{ as } x \text{ approaches } \infty.$$

A. $f(x)$ is close to or exactly 13.42 when x is large enough.

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

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

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

E. None of the above are always true.

3. 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. $\{6.0000, 6.1000, 6.0100, 6.0010\}$

B. $\{5.9000, 5.9900, 6.0100, 6.1000\}$

C. $\{6.0000, 5.9000, 5.9900, 5.9990\}$

D. $\{5.9000, 5.9900, 5.9990, 5.9999\}$

E. $\{6.1000, 6.0100, 6.0010, 6.0001\}$

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

$$\lim_{x\to -1^+} \frac{8}{(x+1)^4} + 6$$

A. $f(-1)$

B. $-\infty$

C. ∞

D. The limit does not exist

E. None of the above

5. Evaluate the limit below, if possible.

$$\lim_{x\to 8} \frac{\sqrt{7x-20}-6}{4x-32}$$

A. ∞

B. 0.661

C. 0.083

D. 0.021

E. None of the above
