



Determine one-sided limits

1

Use the table to find the value $f(x)$ approaches as x approaches -2 from the right.

x	-2.1	-2.01	-2.001	-2	-1.999	-1.99	-1.9
$f(x)$	-0.9	-0.99	-0.999	-1	-1.002	-1.02	-1.2

A

$$\lim_{x \rightarrow -2^+} f(x) = 0$$

B

$$\lim_{x \rightarrow -2^+} f(x) = -1$$

C

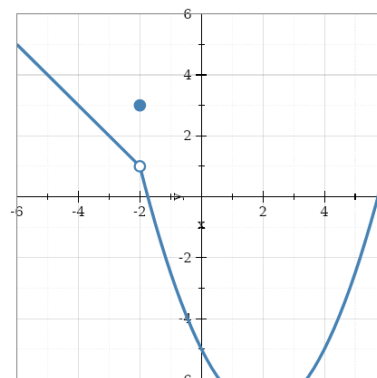
$$\lim_{x \rightarrow -2^+} f(x) = -2$$

D

$$\lim_{x \rightarrow -2^+} f(x) = 1$$

2

Use the graph to evaluate the one-sided limit as x approaches -2 from the left.



A

$$\lim_{x \rightarrow -2^-} f(x) = 0$$

B

$$\lim_{x \rightarrow -2^-} f(x) = 3$$

C

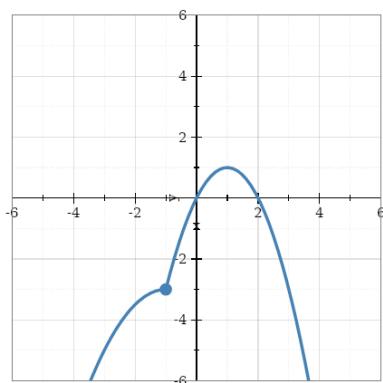
$$\lim_{x \rightarrow -2^-} f(x) = 1$$

D

$$\lim_{x \rightarrow -2^-} f(x) = 2$$

3

Use the graph to find the value $f(x)$ approaches as x approaches -1 from the left.



A

$$\lim_{x \rightarrow -1^-} f(x) = -2$$

B

$$\lim_{x \rightarrow -1^-} f(x) = -3$$

C

$$\lim_{x \rightarrow -1^-} f(x) = -1$$

D

$$\lim_{x \rightarrow -1^-} f(x) = -4$$

4

Use the table to find the value $f(x)$ approaches as x approaches 1 from the left.

x	0.9	0.99	0.999	1	1.001	1.01	1.1
$f(x)$	-0.1	-0.01	-0.001	0	-0.002	-0.02	-0.2

A

$$\lim_{x \rightarrow 1^-} f(x) = 2$$

B

$$\lim_{x \rightarrow 1^-} f(x) = -1$$

C

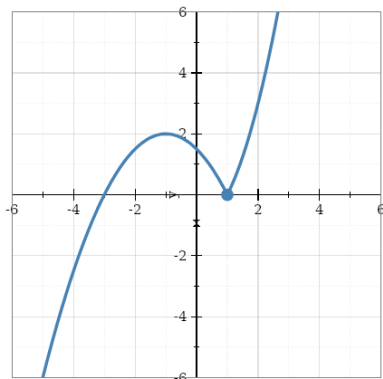
$$\lim_{x \rightarrow 1^-} f(x) = 1$$

D

$$\lim_{x \rightarrow 1^-} f(x) = 0$$

**Determine one-sided limits****5**

Use the graph to evaluate the one-sided limit as x approaches 1 from the left.



A

$$\lim_{x \rightarrow 1^-} f(x) = 1$$

B

$$\lim_{x \rightarrow 1^-} f(x) = -1$$

C

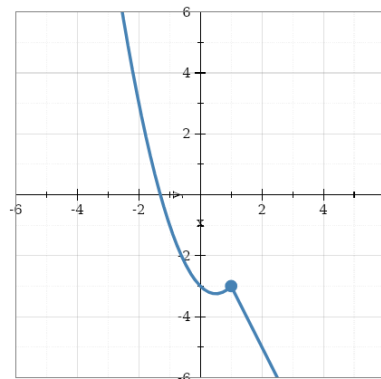
$$\lim_{x \rightarrow 1^-} f(x) = 0$$

D

$$\lim_{x \rightarrow 1^-} f(x) = 2$$

6

Use the graph to find the value $f(x)$ approaches as x approaches 1 from the left.



A

$$\lim_{x \rightarrow 1^-} f(x) = -3$$

B

$$\lim_{x \rightarrow 1^-} f(x) = -1$$

C

$$\lim_{x \rightarrow 1^-} f(x) = -2$$

D

$$\lim_{x \rightarrow 1^-} f(x) = -4$$

7

Use the table to find the value $f(x)$ approaches as x approaches -1 from the left.

x	-1.1	-1.01	-1.001	-1	-0.999	-0.99	-0.9
$f(x)$	2.9	2.99	2.999	3	-1.999	-1.99	-1.9

A

$$\lim_{x \rightarrow -1^-} f(x) = 4$$

B

$$\lim_{x \rightarrow -1^-} f(x) = 2$$

C

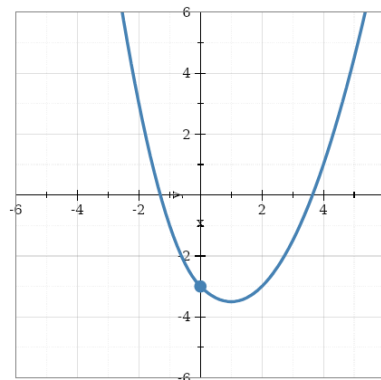
$$\lim_{x \rightarrow -1^-} f(x) = 3$$

D

$$\lim_{x \rightarrow -1^-} f(x) = -2$$

8

Use the graph to evaluate the one-sided limit as x approaches 0 from the left.



A

$$\lim_{x \rightarrow 0^-} f(x) = -4$$

B

$$\lim_{x \rightarrow 0^-} f(x) = -1$$

C

$$\lim_{x \rightarrow 0^-} f(x) = -2$$

D

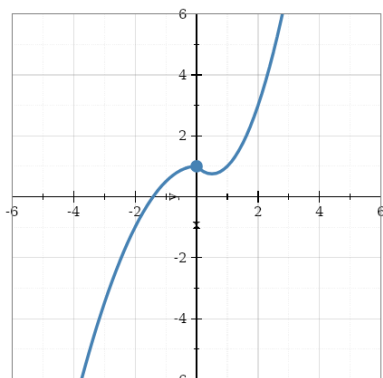
$$\lim_{x \rightarrow 0^-} f(x) = -3$$



Determine one-sided limits

9

Use the graph to find the value $f(x)$ approaches as x approaches 0 from the right.



- A $\lim_{x \rightarrow 0^+} f(x) = 2$ B $\lim_{x \rightarrow 0^+} f(x) = 1$
- C $\lim_{x \rightarrow 0^+} f(x) = 3$ D $\lim_{x \rightarrow 0^+} f(x) = 0$

10

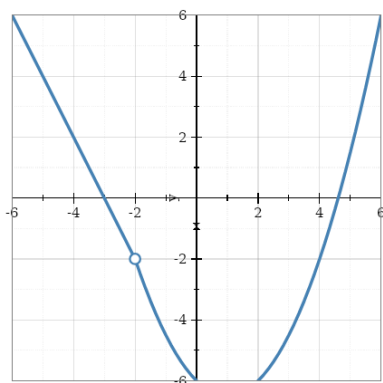
Use the table to find the value $f(x)$ approaches as x approaches 2 from the right.

x	1.9	1.99	1.999	2	2.001	2.01	2.1
f(x)	-2.1	-2.01	-2.001	undefined	-1.998	-1.98	-1.8

- A $\lim_{x \rightarrow 2^+} f(x) = -3$ B $\lim_{x \rightarrow 2^+} f(x) = 0$
- C $\lim_{x \rightarrow 2^+} f(x) = -1$ D $\lim_{x \rightarrow 2^+} f(x) = -2$

11

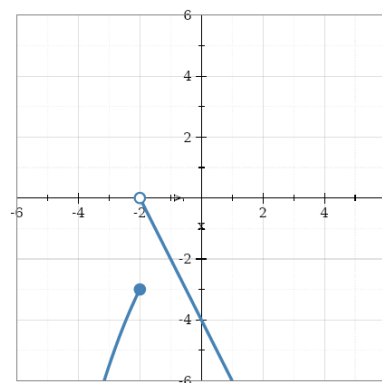
Use the graph to evaluate the one-sided limit as x approaches -2 from the right.



- A $\lim_{x \rightarrow -2^+} f(x) = -2$ B $\lim_{x \rightarrow -2^+} f(x) = -3$
- C $\lim_{x \rightarrow -2^+} f(x) = 0$ D $\lim_{x \rightarrow -2^+} f(x) = -1$

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Use the graph to find the value $f(x)$ approaches as x approaches -2 from the left.



- A $\lim_{x \rightarrow -2^-} f(x) = 0$ B $\lim_{x \rightarrow -2^-} f(x) = -3$
- C $\lim_{x \rightarrow -2^-} f(x) = -4$ D $\lim_{x \rightarrow -2^-} f(x) = -2$