

1. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{8x^2 + 56} - \sqrt{44x} = 0$$

- A. $x \in [1.81, 3.13]$
 - B. $x_1 \in [1.81, 3.13]$ and $x_2 \in [-1.5, 4.5]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [3.16, 4.72]$
 - E. $x_1 \in [-3.78, -3.05]$ and $x_2 \in [-4, -0]$
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2. What is the domain of the function below?

$$f(x) = \sqrt[4]{3x + 4}$$

- A. $(-\infty, a]$, where $a \in [-1.73, -1.2]$
 - B. $(-\infty, a]$, where $a \in [-1.06, -0.35]$
 - C. $[a, \infty)$, where $a \in [-1.65, -0.88]$
 - D. $(-\infty, \infty)$
 - E. $[a, \infty)$, where $a \in [-1.14, 0.36]$
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3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{3x + 2} - \sqrt{-3x + 8} = 0$$

- A. $x \in [0.47, 1.14]$
- B. $x_1 \in [-0.68, 0.26]$ and $x_2 \in [0.24, 1.52]$
- C. $x_1 \in [-0.68, 0.26]$ and $x_2 \in [2.39, 3.14]$
- D. $x \in [-1.97, -0.93]$
- E. All solutions lead to invalid or complex values in the equation.

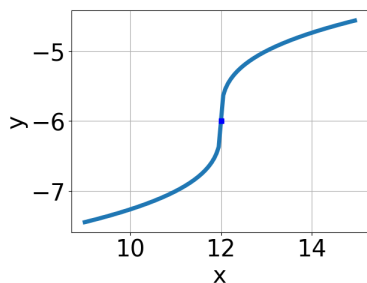
4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-5x - 4} - \sqrt{9x + 3} = 0$$

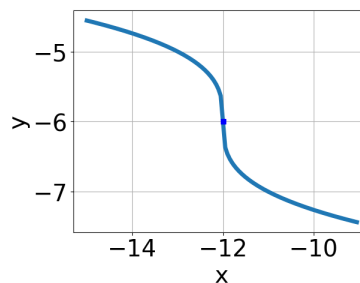
- A. $x_1 \in [-1.01, -0.64]$ and $x_2 \in [-0.34, -0.25]$
 B. $x \in [-0.58, -0.31]$
 C. $x_1 \in [-1.01, -0.64]$ and $x_2 \in [-0.94, -0.36]$
 D. All solutions lead to invalid or complex values in the equation.
 E. $x \in [-0.23, 0.21]$

5. Choose the graph of the equation below.

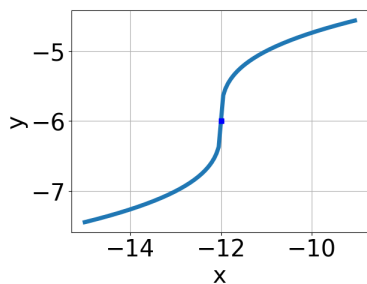
$$f(x) = \sqrt[3]{x - 12} - 6$$



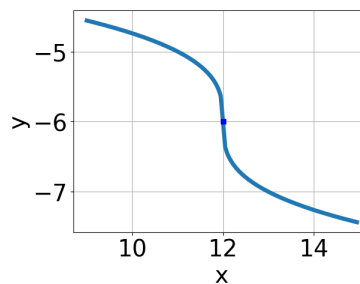
A.



C.



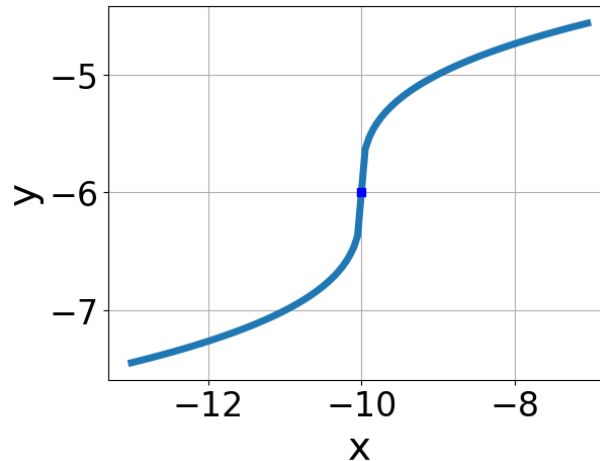
B.



D.

E. None of the above.

6. Choose the equation of the function graphed below.



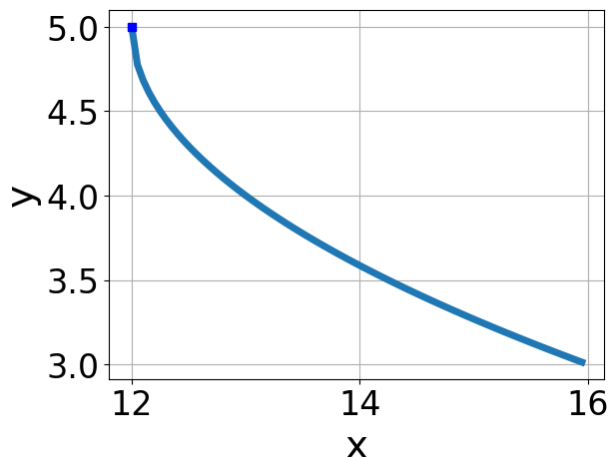
- A. $f(x) = \sqrt{x - 10} - 6$
- B. $f(x) = -\sqrt{x + 10} - 6$
- C. $f(x) = -\sqrt{x - 10} - 6$
- D. $f(x) = \sqrt{x + 10} - 6$
- E. None of the above

7. What is the domain of the function below?

$$f(x) = \sqrt[3]{-3x - 4}$$

- A. $(-\infty, \infty)$
- B. The domain is $[a, \infty)$, where $a \in [-1.7, -0.94]$
- C. The domain is $(-\infty, a]$, where $a \in [-0.9, 0.78]$
- D. The domain is $[a, \infty)$, where $a \in [-1.3, -0.43]$
- E. The domain is $(-\infty, a]$, where $a \in [-2.25, -1.15]$

8. Choose the equation of the function graphed below.



- A. $f(x) = -\sqrt[3]{x+12} + 5$
- B. $f(x) = \sqrt[3]{x-12} + 5$
- C. $f(x) = -\sqrt[3]{x-12} + 5$
- D. $f(x) = \sqrt[3]{x+12} + 5$
- E. None of the above

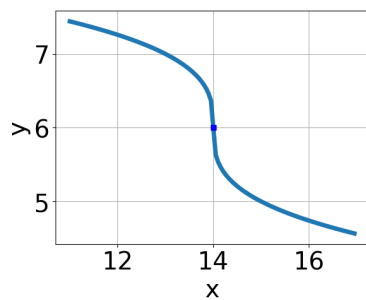
9. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{45x^2 - 56} - \sqrt{-37x} = 0$$

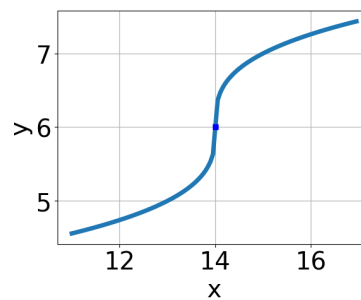
- A. $x_1 \in [-4.3, -1.2]$ and $x_2 \in [0.09, 1.18]$
- B. $x_1 \in [-0.4, 2]$ and $x_2 \in [1.28, 2.34]$
- C. $x \in [-4.3, -1.2]$
- D. $x \in [-0.4, 2]$
- E. All solutions lead to invalid or complex values in the equation.

10. Choose the graph of the equation below.

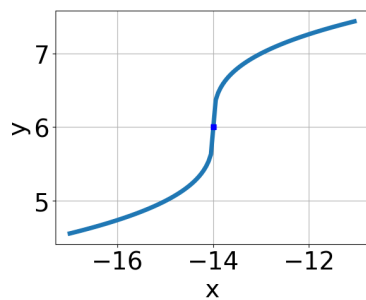
$$f(x) = \sqrt[3]{x-14} + 6$$



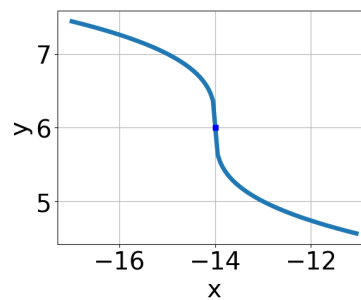
A.



C.



B.



D.

E. None of the above.