

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

$$\sqrt{-3x - 4} - \sqrt{2x - 7} = 0$$

- A. All solutions lead to invalid or complex values in the equation.
 B. $x_1 \in [-1.61, -0.71]$ and $x_2 \in [0.6, 2.6]$
 C. $x \in [0.34, 1.08]$
 D. $x \in [-4.02, -1.95]$
 E. $x_1 \in [-1.61, -0.71]$ and $x_2 \in [3.5, 8.5]$

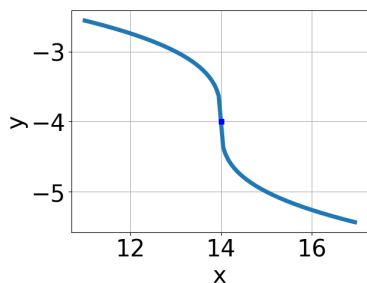
2. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{49x^2 + 36} - \sqrt{91x} = 0$$

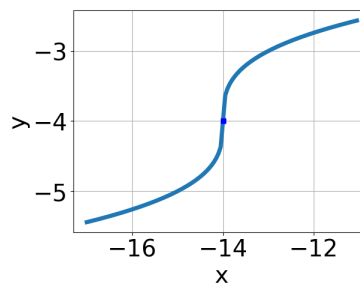
- A. $x \in [0.55, 0.87]$
 B. $x \in [1.14, 1.64]$
 C. $x_1 \in [-2.17, -0.24]$ and $x_2 \in [-1.7, -0.4]$
 D. $x_1 \in [0.55, 0.87]$ and $x_2 \in [0, 3.4]$
 E. All solutions lead to invalid or complex values in the equation.

3. Choose the graph of the equation below.

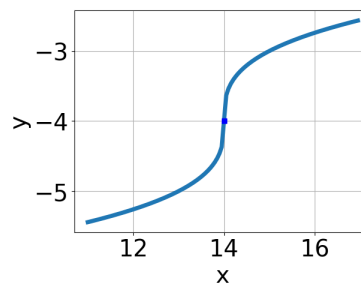
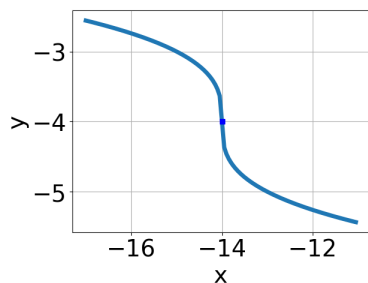
$$f(x) = \sqrt[3]{x - 14} - 4$$



A.

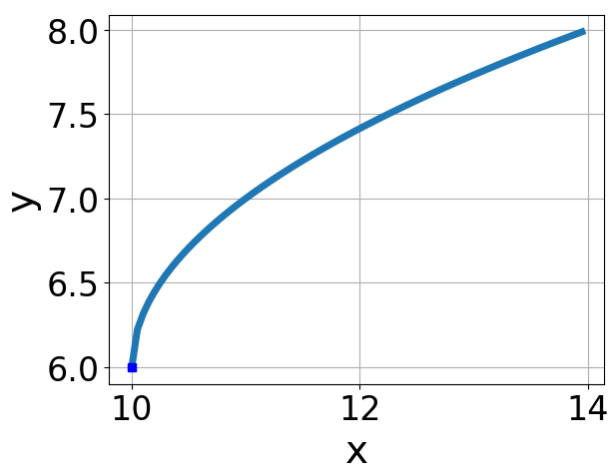


B.



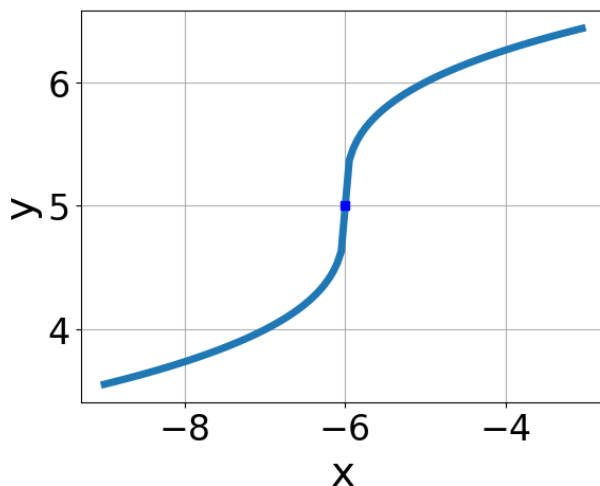
E. None of the above.

4. Choose the equation of the function graphed below.



- A. $f(x) = \sqrt[3]{x+10} + 6$
B. $f(x) = -\sqrt[3]{x-10} + 6$
C. $f(x) = -\sqrt[3]{x+10} + 6$
D. $f(x) = \sqrt[3]{x-10} + 6$
E. None of the above

5. Choose the equation of the function graphed below.



- A. $f(x) = \sqrt[3]{x-6} + 5$
- B. $f(x) = \sqrt[3]{x+6} + 5$
- C. $f(x) = -\sqrt[3]{x-6} + 5$
- D. $f(x) = -\sqrt[3]{x+6} + 5$
- E. None of the above

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

$$\sqrt{-2x+8} - \sqrt{-6x+7} = 0$$

- A. $x \in [-6.3, -3.3]$
- B. $x \in [-2.3, 0.3]$
- C. All solutions lead to invalid or complex values in the equation.
- D. $x_1 \in [-2.3, 0.3]$ and $x_2 \in [4, 5]$
- E. $x_1 \in [0, 2.3]$ and $x_2 \in [4, 5]$

7. What is the domain of the function below?

$$f(x) = \sqrt[4]{-5x+4}$$

- A. $(-\infty, a]$, where $a \in [0.75, 0.96]$

- B. $(-\infty, \infty)$
 - C. $[a, \infty)$, where $a \in [0.29, 1.23]$
 - D. $(-\infty, a]$, where $a \in [0.98, 1.43]$
 - E. $[a, \infty)$, where $a \in [1, 1.39]$
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8. What is the domain of the function below?

$$f(x) = \sqrt[3]{7x - 3}$$

- A. The domain is $[a, \infty)$, where $a \in [-0.57, 1.43]$
 - B. $(-\infty, \infty)$
 - C. The domain is $(-\infty, a]$, where $a \in [1.44, 3.87]$
 - D. The domain is $(-\infty, a]$, where $a \in [0.31, 1.31]$
 - E. The domain is $[a, \infty)$, where $a \in [2.33, 6.33]$
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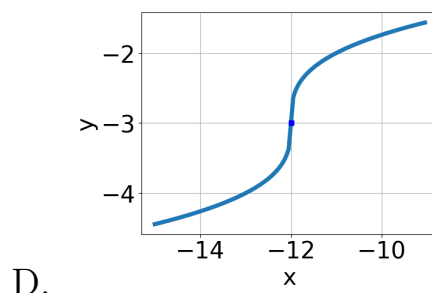
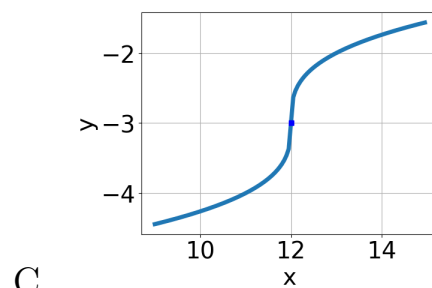
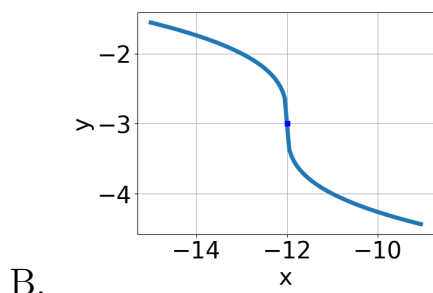
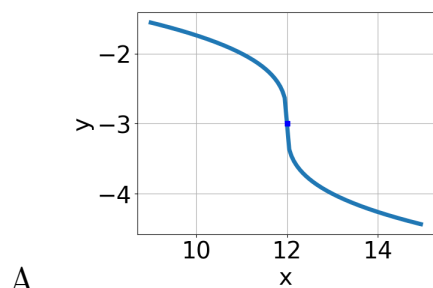
9. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-6x^2 - 27} - \sqrt{33x} = 0$$

- A. $x_1 \in [-7.5, -1.5]$ and $x_2 \in [-2.8, 0.3]$
 - B. $x_1 \in [4.5, 6.5]$ and $x_2 \in [0.3, 2.4]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [-7.5, -1.5]$
 - E. $x \in [-1, 1]$
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10. Choose the graph of the equation below.

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



E. None of the above.
