

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

$$\sqrt{9x + 8} - \sqrt{-3x - 5} = 0$$

- A. $x \in [-0.51, 0.28]$
- B. All solutions lead to invalid or complex values in the equation.
- C. $x_1 \in [-2.85, -1.53]$ and $x_2 \in [-0.89, 0.11]$
- D. $x_1 \in [-1.33, -0.46]$ and $x_2 \in [-0.89, 0.11]$
- E. $x \in [-1.33, -0.46]$

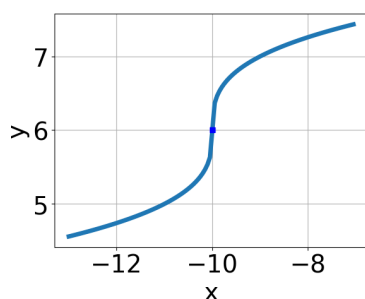
2. What is the domain of the function below?

$$f(x) = \sqrt[7]{-7x + 8}$$

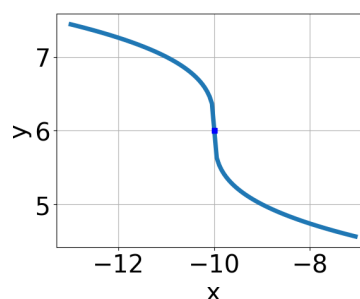
- A. The domain is $(-\infty, a]$, where $a \in [0.64, 1.04]$
- B. The domain is $[a, \infty)$, where $a \in [1.01, 1.33]$
- C. $(-\infty, \infty)$
- D. The domain is $(-\infty, a]$, where $a \in [1.01, 1.23]$
- E. The domain is $[a, \infty)$, where $a \in [0.78, 0.93]$

3. Choose the graph of the equation below.

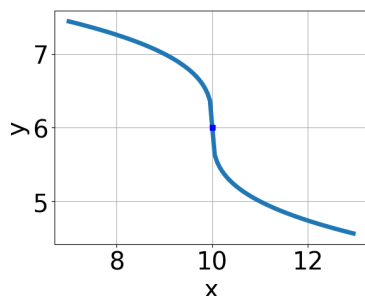
$$f(x) = -\sqrt[3]{x - 10} + 6$$



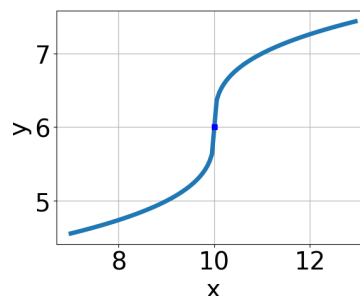
A.



B.



C.



D.

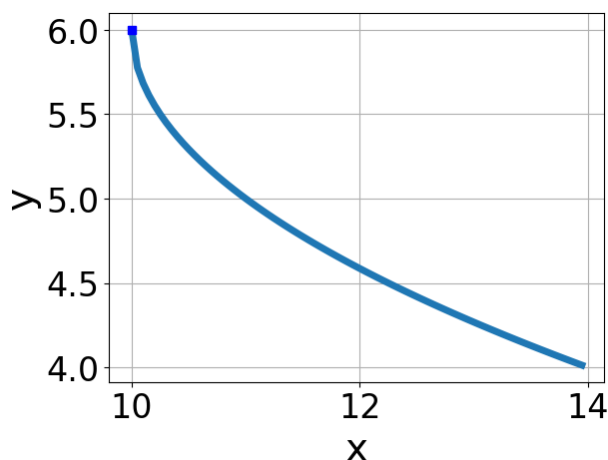
E. None of the above.

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

$$\sqrt{48x^2 + 24} - \sqrt{82x} = 0$$

- A. $x \in [0.41, 2.23]$
- B. $x \in [-0.43, 0.57]$
- C. All solutions lead to invalid or complex values in the equation.
- D. $x_1 \in [-1.63, -0.26]$ and $x_2 \in [-0.9, 1.1]$
- E. $x_1 \in [-0.43, 0.57]$ and $x_2 \in [1.1, 2.1]$

5. 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
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6. What is the domain of the function below?

$$f(x) = \sqrt[4]{7x+3}$$

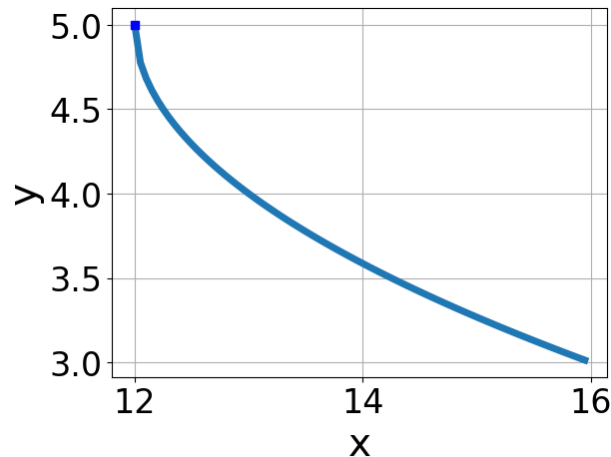
- A. $(-\infty, a]$, where $a \in [-3, -1.4]$
 - B. $(-\infty, a]$, where $a \in [-1.7, 0.3]$
 - C. $[a, \infty)$, where $a \in [-0.7, 0.7]$
 - D. $[a, \infty)$, where $a \in [-3.1, -2]$
 - E. $(-\infty, \infty)$
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7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-36x^2 - 10} - \sqrt{-53x} = 0$$

- A. $x \in [0.98, 1.34]$
 - B. $x \in [0.12, 0.27]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x_1 \in [0.12, 0.27]$ and $x_2 \in [-0.75, 5.25]$
 - E. $x_1 \in [-0.27, -0.16]$ and $x_2 \in [-6.25, -0.25]$
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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

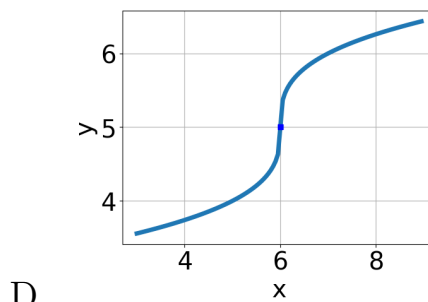
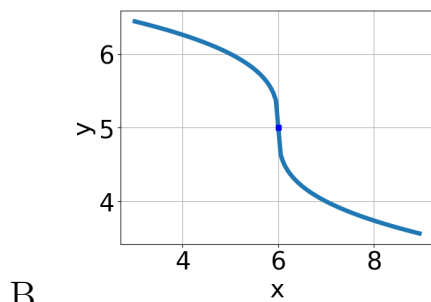
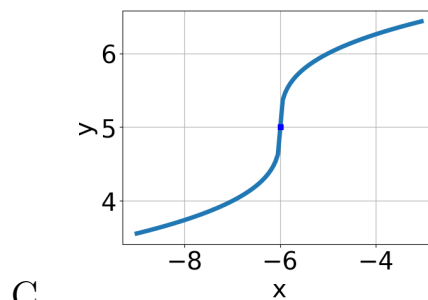
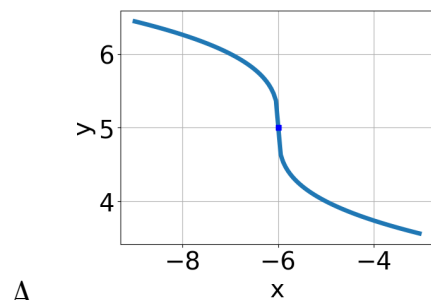
9. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-7x+4} - \sqrt{4x-5} = 0$$

- A. All solutions lead to invalid or complex values in the equation.
- B. $x_1 \in [0.23, 0.58]$ and $x_2 \in [0.9, 2.5]$
- C. $x \in [-0.15, -0.06]$
- D. $x_1 \in [0.23, 0.58]$ and $x_2 \in [-0.5, 1.1]$
- E. $x \in [0.77, 0.89]$

10. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-6} + 5$$



E. None of the above.