

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

$$\sqrt{40x^2 - 12} - \sqrt{-4x} = 0$$

- A. $x_1 \in [0.08, 1.17]$ and $x_2 \in [0.52, 0.67]$
B. $x_1 \in [-0.9, -0.24]$ and $x_2 \in [0.42, 0.53]$
C. All solutions lead to invalid or complex values in the equation.
D. $x \in [-0.9, -0.24]$
E. $x \in [0.08, 1.17]$
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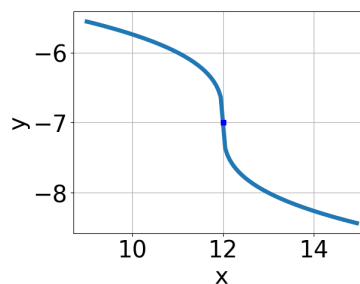
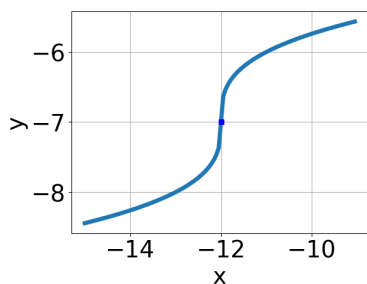
2. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

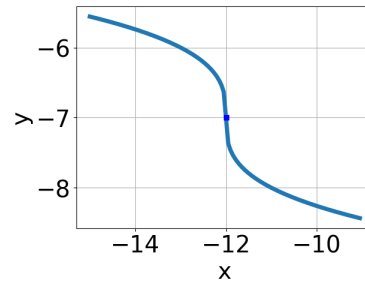
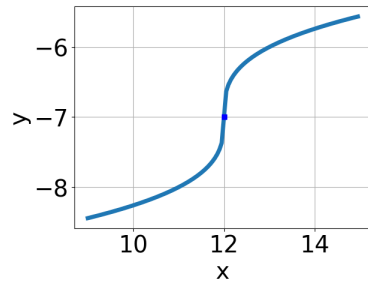
$$\sqrt{81x^2 + 35} - \sqrt{108x} = 0$$

- A. $x_1 \in [-0.82, -0.56]$ and $x_2 \in [-1.4, -0.5]$
B. All solutions lead to invalid or complex values in the equation.
C. $x \in [0.14, 0.57]$
D. $x \in [0.58, 1]$
E. $x_1 \in [0.14, 0.57]$ and $x_2 \in [0.6, 0.9]$
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3. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x + 12} - 7$$





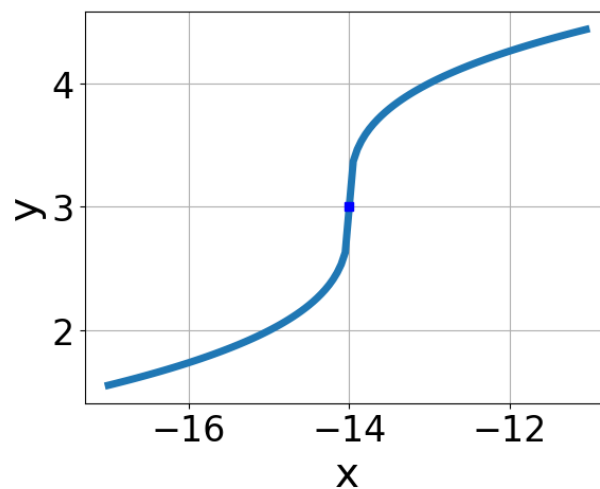
E. None of the above.

4. What is the domain of the function below?

$$f(x) = \sqrt[5]{6x + 4}$$

- A. $(-\infty, \infty)$
- B. The domain is $[a, \infty)$, where $a \in [-0.81, -0.48]$
- C. The domain is $(-\infty, a]$, where $a \in [-2, -0.7]$
- D. The domain is $[a, \infty)$, where $a \in [-1.61, -1.01]$
- E. The domain is $(-\infty, a]$, where $a \in [-1.2, 1]$

5. Choose the equation of the function graphed below.



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

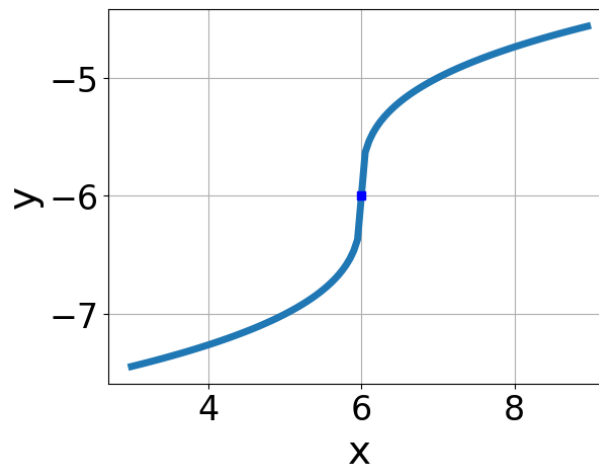
- B. $f(x) = -\sqrt[3]{x-14} + 3$
C. $f(x) = \sqrt[3]{x-14} + 3$
D. $f(x) = \sqrt[3]{x+14} + 3$
E. None of the above
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6. What is the domain of the function below?

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

- A. $(-\infty, a]$, where $a \in [0.14, 1.27]$
B. $[a, \infty)$, where $a \in [-0.9, 1]$
C. $(-\infty, \infty)$
D. $(-\infty, a]$, where $a \in [1.18, 2.02]$
E. $[a, \infty)$, where $a \in [1.1, 2.4]$
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7. Choose the equation of the function graphed below.

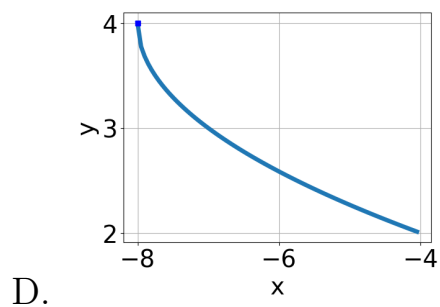
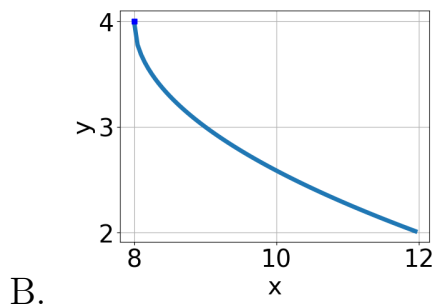
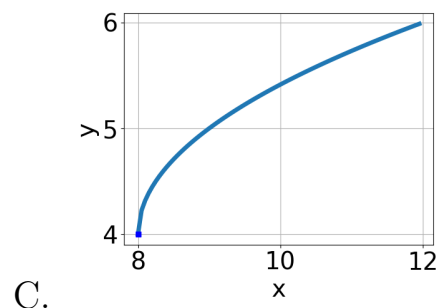
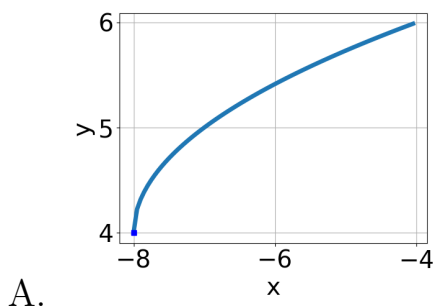


- A. $f(x) = -\sqrt[3]{x+6} - 6$
B. $f(x) = \sqrt[3]{x-6} - 6$
C. $f(x) = \sqrt[3]{x+6} - 6$
D. $f(x) = -\sqrt[3]{x-6} - 6$

E. None of the above

8. Choose the graph of the equation below.

$$f(x) = \sqrt{x - 8} + 4$$



E. None of the above.

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

$$\sqrt{-6x - 9} - \sqrt{4x - 9} = 0$$

A. All solutions lead to invalid or complex values in the equation.

B. $x \in [-2.04, -1.8]$

C. $x \in [-0.76, 0]$

D. $x_1 \in [-1.57, -1.39]$ and $x_2 \in [1.25, 6.25]$

E. $x_1 \in [-1.57, -1.39]$ and $x_2 \in [-2, 1]$

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

$$\sqrt{4x - 8} - \sqrt{-5x - 5} = 0$$

- A. $x_1 \in [0.02, 0.8]$ and $x_2 \in [1, 8]$
 - B. $x_1 \in [-1.15, -0.45]$ and $x_2 \in [1, 8]$
 - C. $x \in [0.4, 2.72]$
 - D. All solutions lead to invalid or complex values in the equation.
 - E. $x \in [0.02, 0.8]$
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