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

$$\sqrt{-6x^2 - 24} - \sqrt{25x} = 0$$

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

B. $x \in [-2.1, -1.01]$

C. $x \in [-2.72, -2.4]$

D. $x_1 \in [2.51, 2.69]$ and $x_2 \in [0.5, 4.5]$

E. $x_1 \in [-2.72, -2.4]$ and $x_2 \in [-2.5, -0.5]$

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2. What is the domain of the function below?

$$f(x) = \sqrt[4]{-9x - 4}$$

A. $(-\infty, a]$, where $a \in [-3.39, -1.49]$

B. $(-\infty, \infty)$

C. $(-\infty, a]$, where $a \in [-0.9, 0.29]$

D. $[a, \infty)$, where $a \in [-1.44, 2.56]$

E. $[a, \infty)$, where $a \in [-9.25, -1.25]$

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

$$\sqrt{6x - 3} - \sqrt{-2x - 4} = 0$$

A. $x \in [-0.1, 1]$

B. $x_1 \in [-4.9, -1.6]$ and $x_2 \in [-3.5, 1.5]$

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

D. $x_1 \in [-0.4, 0.6]$ and $x_2 \in [-3.5, 1.5]$

E. $x \in [-0.4, 0.6]$

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

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

A. $x \in [11.9, 15.8]$

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

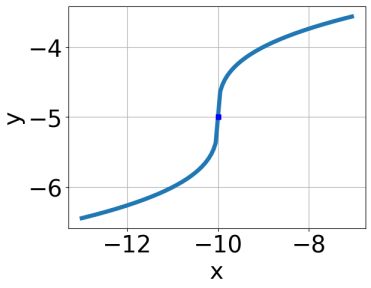
C. $x_1 \in [-1.4, 0.8]$ and $x_2 \in [9, 16]$

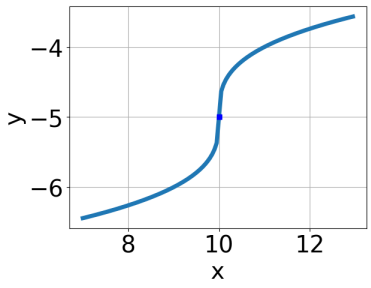
D. $x_1 \in [-1.4, 0.8]$ and $x_2 \in [-3.25, 3.75]$

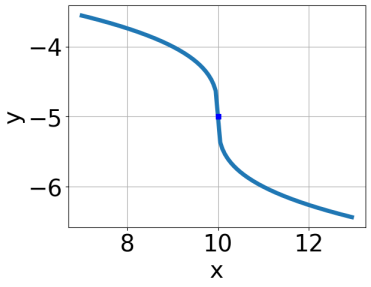
E. $x \in [0.8, 3.3]$

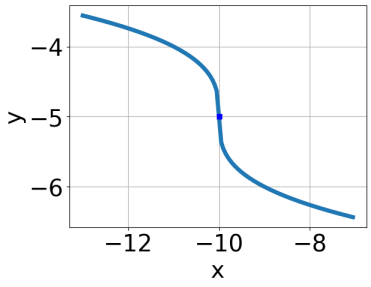
5. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-10} - 5$$

A.


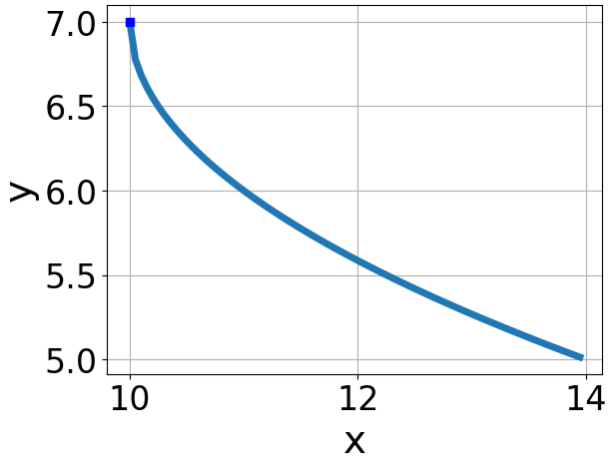
C.


B.


D.


E. None of the above.

6. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-10}+7$

B. $f(x) = -\sqrt[3]{x+10}+7$

C. $f(x) = \sqrt[3]{x-10}+7$

D. $f(x) = \sqrt[3]{x+10}+7$

E. None of the above

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7. What is the domain of the function below?

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

A. The domain is $(-\infty, a]$, where $a \in [1, 4]$

B. $(-\infty, \infty)$

C. The domain is $(-\infty, a]$, where $a \in [-2.5, 1.5]$

D. The domain is $[a, \infty)$, where $a \in [1, 6]$

E. The domain is $[a, \infty)$, where $a \in [0.5, 1.5]$

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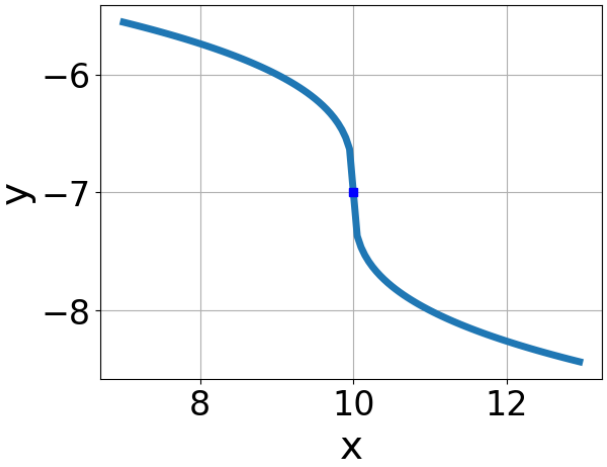
8. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-10} - 7$

B. $f(x) = \sqrt[3]{x-10} - 7$

C. $f(x) = -\sqrt[3]{x+10} - 7$

D. $f(x) = \sqrt[3]{x+10} - 7$

E. None of the above

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

$$\sqrt{-40x^2 - 18} - \sqrt{61x} = 0$$

A. $x \in [-1.53, -0.98]$

B. $x_1 \in [0.81, 1.41]$ and $x_2 \in [0.37, 0.89]$

C. $x_1 \in [-1.53, -0.98]$ and $x_2 \in [-0.49, 0.22]$

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

E. $x \in [-0.76, -0.32]$

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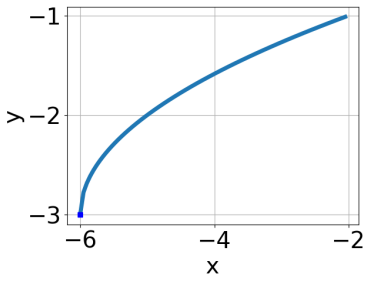
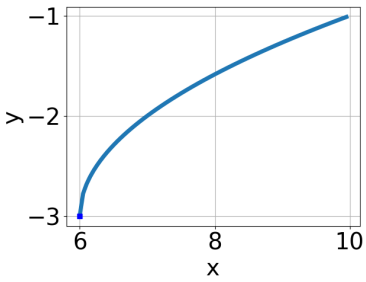
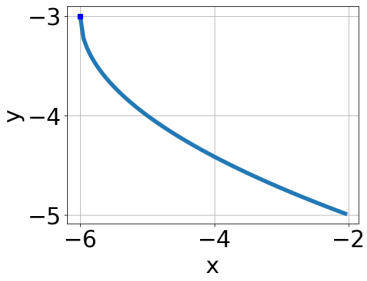
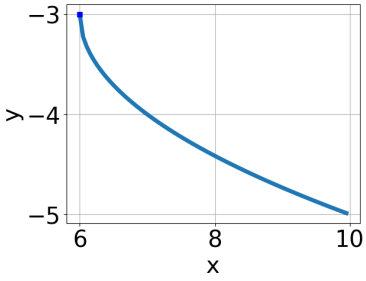
10. Choose the graph of the equation below.

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

A. 

C. 

B. 

D. 

E. None of the above.
