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

$$\sqrt{-9x+5} - \sqrt{4x-6} = 0$$

A. $x_1 \in [0.48, 0.62]$ and $x_2 \in [0.8, 1.1]$

B. $x_1 \in [0.48, 0.62]$ and $x_2 \in [1.37, 1.67]$

C. $x \in [-0.39, -0.03]$

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

E. $x \in [0.83, 0.86]$

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2. What is the domain of the function below?

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

A. $(-\infty, a]$, where $a \in [-0.5, 1.47]$

B. $[a, \infty)$, where $a \in [1.3, 2.6]$

C. $[a, \infty)$, where $a \in [-3, 1.4]$

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

E. $(-\infty, a]$, where $a \in [1.58, 3.33]$

---

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

$$\sqrt{42x^2+48} - \sqrt{-90x} = 0$$

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

B. $x \in [-1.28, -1.03]$

C. $x_1 \in [-1.28, -1.03]$ and $x_2 \in [-2, 1]$

D. $x_1 \in [0.66, 1.88]$ and $x_2 \in [1.14, 3.14]$

E. $x \in [-1.01, -0.68]$

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

$$\sqrt{48x^2+6}-\sqrt{-34x}=0$$

A. $x_1 \in [0.33, 0.39]$ and $x_2 \in [0.27, 1.33]$

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

C. $x \in [-0.36, -0.3]$

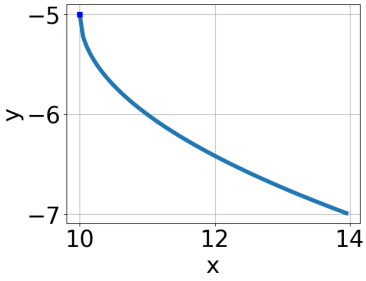
D. $x_1 \in [-0.4, -0.36]$ and $x_2 \in [-1.21, -0.28]$

E. $x \in [-0.4, -0.36]$

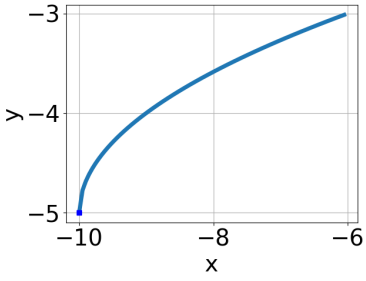
5. Choose the graph of the equation below.

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

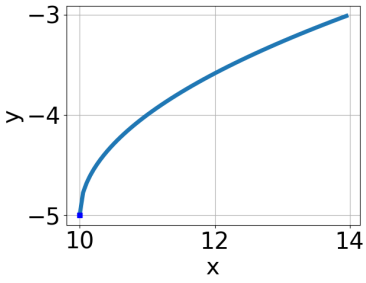
A.



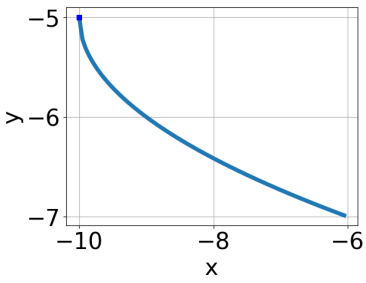
C.



B.

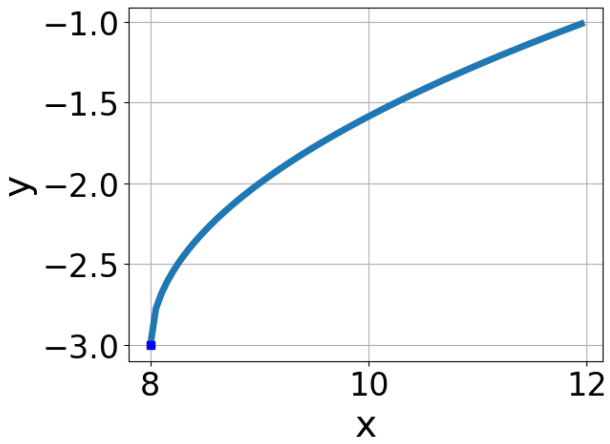


D.



E. None of the above.

6. Choose the equation of the function graphed below.



A. $f(x) = \sqrt[3]{x-8} - 3$

B. $f(x) = \sqrt[3]{x+8} - 3$

C. $f(x) = -\sqrt[3]{x-8} - 3$

D. $f(x) = -\sqrt[3]{x+8} - 3$

E. None of the above

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

$$\sqrt{5x-7} - \sqrt{3x+8} = 0$$

A. $x \in [-2.5, 1.2]$

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

C. $x_1 \in [-3.3, -2.5]$ and $x_2 \in [1.4, 3.4]$

D. $x \in [6.1, 8.3]$

E. $x_1 \in [0.6, 1.6]$ and $x_2 \in [6.5, 8.5]$

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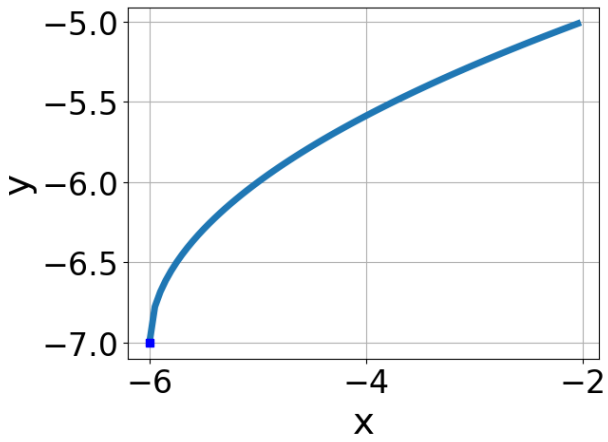
8. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-6} - 7$

B. $f(x) = \sqrt[3]{x-6} - 7$

C. $f(x) = \sqrt[3]{x+6} - 7$

D. $f(x) = -\sqrt[3]{x+6} - 7$

E. None of the above

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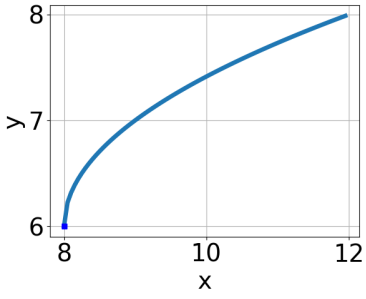
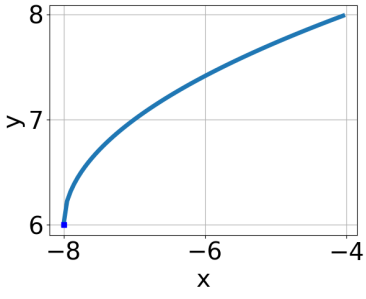
9. Choose the graph of the equation below.

$$f(x) = \sqrt{x+8} + 6$$

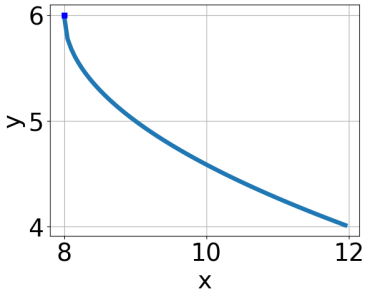
A.



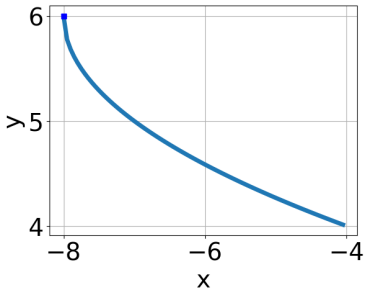
C.



B.



D.



E. None of the above.

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10. What is the domain of the function below?

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

A. $[a, \infty)$, where $a \in [1.12, 1.45]$

B. $(-\infty, a]$, where $a \in [0.46, 1.16]$

C. $[a, \infty)$, where $a \in [0.26, 0.81]$

D. $(-\infty, a]$, where $a \in [0.84, 1.44]$

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