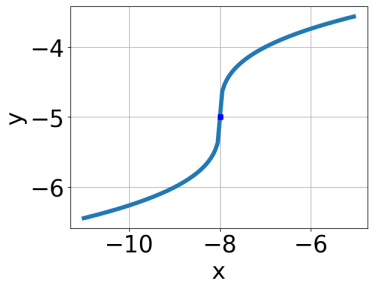
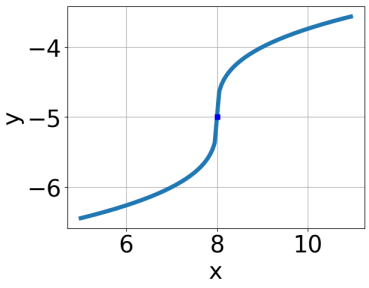
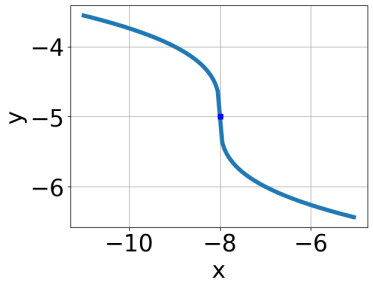
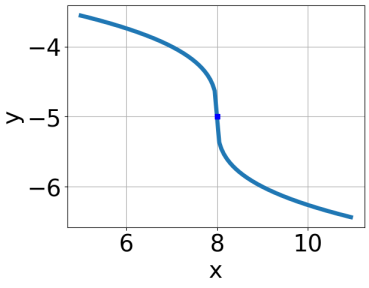
1. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-8} - 5$$

A.


C.


B.


D.


E. None of the above.

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

$$\sqrt{-8x+7} - \sqrt{8x+4} = 0$$

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

B. $x_1 \in [-0.39, 0.67]$ and $x_2 \in [-6.12, 1.88]$

C. $x \in [-0.39, 0.67]$

D. $x_1 \in [-1.29, -0.24]$ and $x_2 \in [-6.12, 1.88]$

E. $x \in [0.34, 1.19]$

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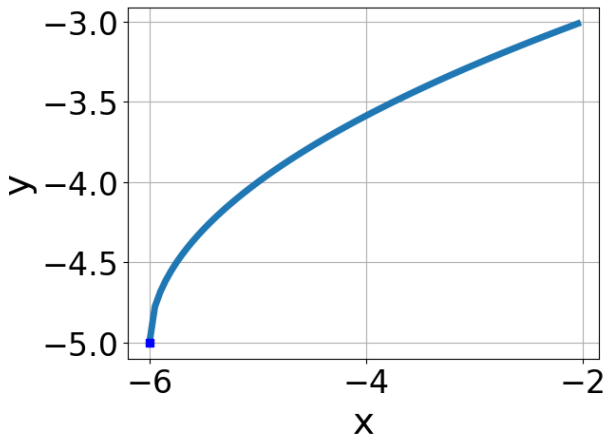
3. Choose the equation of the function graphed below.



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

---

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

$$\sqrt{12x^2+81} - \sqrt{72x} = 0$$

A. $x \in [3.5, 6.5]$

B. $x_1 \in [1.5, 3.5]$ and $x_2 \in [4.5, 6.5]$

C. $x \in [1.5, 3.5]$

D. $x_1 \in [-9.5, -2.5]$ and $x_2 \in [-4.5, 2.5]$

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

---

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

$$\sqrt{9x-6} - \sqrt{3x+6} = 0$$

A. $x_1 \in [-2.56, -1.81]$ and $x_2 \in [-0.33, 1.67]$

B. $x_1 \in [0.32, 1.17]$ and $x_2 \in [1, 6]$

C. $x \in [1.63, 2.6]$

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

E. $x \in [-0.88, 0.49]$

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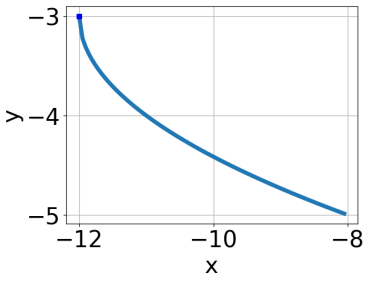
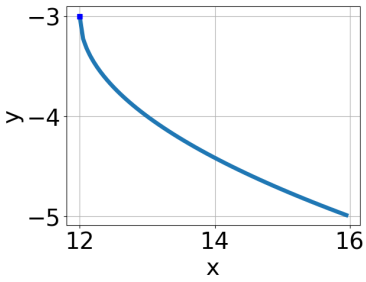
6. Choose the graph of the equation below.

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

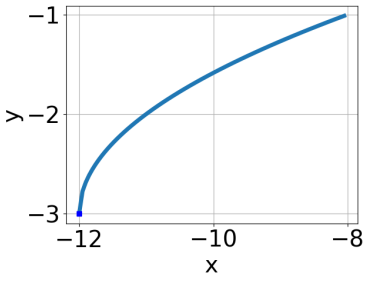
A.



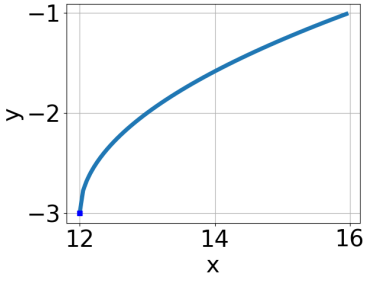
C.



B.



D.



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.

$$\sqrt{-54x^2 - 30} - \sqrt{-81x} = 0$$

A. $x \in [0.44, 0.73]$

B. $x_1 \in [-0.8, -0.43]$ and $x_2 \in [-1.9, -0.3]$

C. $x \in [0.76, 0.96]$

D. $x_1 \in [0.44, 0.73]$ and $x_2 \in [0.3, 2.2]$

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

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8. What is the domain of the function below?

$$f(x) = \sqrt[3]{-4x - 5}$$

A. The domain is $(-\infty, a]$, where $a \in [-0.91, -0.61]$

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

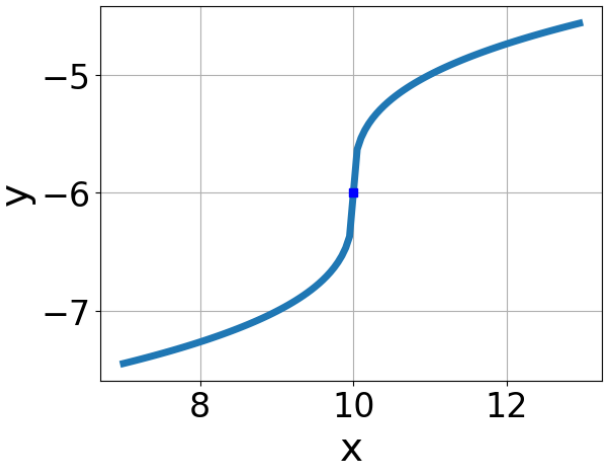
C. The domain is $[a, \infty)$, where $a \in [-2.88, -1.23]$

D. The domain is $(-\infty, a]$, where $a \in [-2.24, -0.81]$

E. The domain is $[a, \infty)$, where $a \in [-1.01, -0.02]$

---

9. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt{x - 10} - 6$

B. $f(x) = \sqrt{x - 10} - 6$

C. $f(x) = \sqrt{x + 10} - 6$

D. $f(x) = -\sqrt{x + 10} - 6$

E. None of the above

---

10. What is the domain of the function below?

$$f(x) = \sqrt[8]{7x+4}$$

A. $(-\infty, a]$, where $a \in [-3.3, -1.17]$

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

C. $(-\infty, a]$, where $a \in [-0.66, -0.36]$

D. $[a, \infty)$, where $a \in [-4.1, -0.58]$

E. $[a, \infty)$, where $a \in [-1.02, -0.28]$