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

$$\sqrt{-5x+4} - \sqrt{-6x-8} = 0$$

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

B. $x_1 \in [-13, -10]$ and $x_2 \in [0.8, 3.8]$

C. $x \in [-13, -10]$

D. $x \in [1, 10]$

E. $x_1 \in [-4.33, -0.33]$ and $x_2 \in [0.8, 3.8]$

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2. What is the domain of the function below?

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

A. The domain is $(-\infty, a]$, where $a \in [1.55, 1.8]$

B. The domain is $(-\infty, a]$, where $a \in [0.15, 1.5]$

C. The domain is $[a, \infty)$, where $a \in [1, 2.4]$

D. The domain is $[a, \infty)$, where $a \in [-0.3, 0.9]$

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

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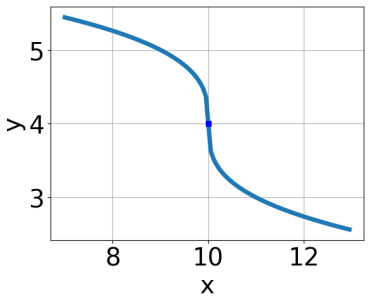
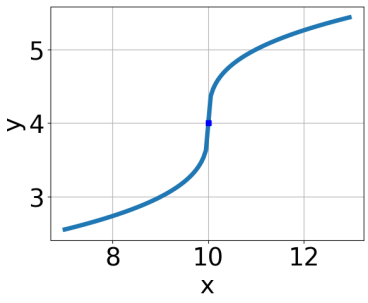
3. Choose the graph of the equation below.

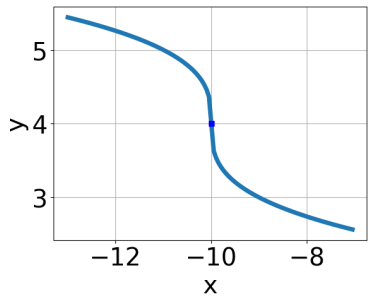
$$f(x) = -\sqrt[3]{x+10} + 4$$

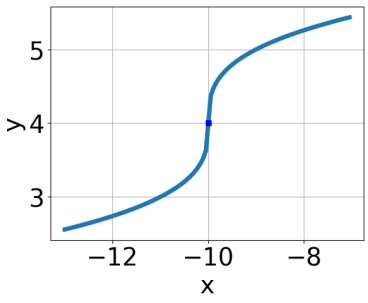
A.



B.



C. 

D. 

E. None of the above.

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

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

A. $x_1 \in [-1.97, -1.49]$ and $x_2 \in [-1.29, -0.29]$

B. $x_1 \in [1.16, 1.48]$ and $x_2 \in [-1.2, 3.8]$

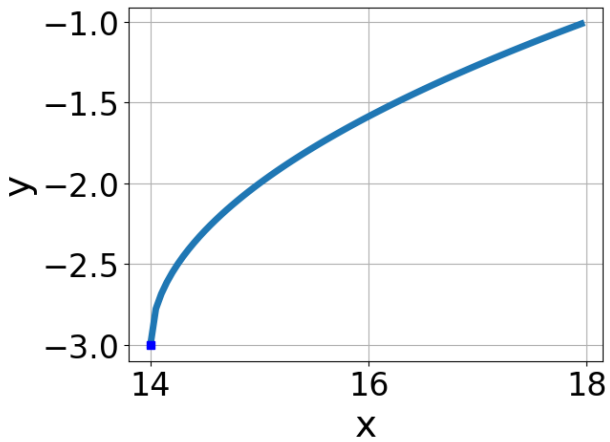
C. All solutions lead to invalid or complex values in the equation.

D. $x \in [1.65, 1.94]$

E. $x \in [1.16, 1.48]$

---

5. Choose the equation of the function graphed below.



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

B. $f(x) = \sqrt{x+14} - 3$

C. $f(x) = -\sqrt{x-14} - 3$

D. $f(x) = -\sqrt{x+14} - 3$

E. None of the above

---

6. What is the domain of the function below?

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

A. $(-\infty, a]$, where $a \in [0.7, 4.5]$

B. $(-\infty, a]$, where $a \in [-1.8, 1.3]$

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

D. $[a, \infty)$, where $a \in [0.01, 1.42]$

E. $[a, \infty)$, where $a \in [0.85, 3.18]$

---

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

$$\sqrt{-28x^2 - 27} - \sqrt{75x} = 0$$

A. $x_1 \in [1.7, 4.6]$ and $x_2 \in [0.17, 1.28]$

B. $x \in [-4.5, -1.8]$

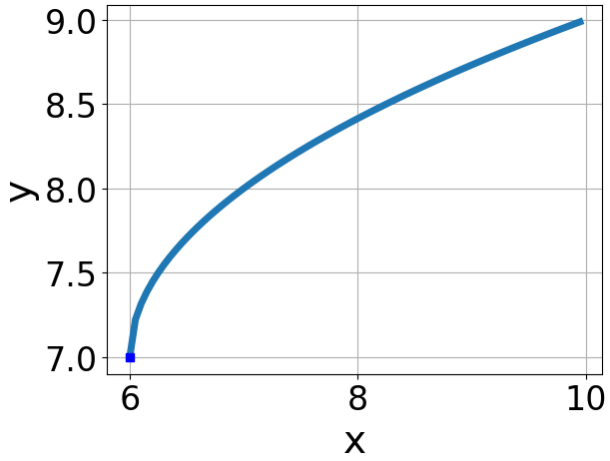
C. All solutions lead to invalid or complex values in the equation.

D. $x_1 \in [-4.5, -1.8]$ and $x_2 \in [-0.97, -0.23]$

E. $x \in [-1.5, -0.2]$

---

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

---

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

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

A. $x_1 \in [-0.37, 0.66]$ and $x_2 \in [0.7, 4.2]$

B. $x \in [-1.31, -0.01]$

C. $x \in [1.41, 2.96]$

D. $x_1 \in [-2.53, -1.69]$ and $x_2 \in [-0.1, 1.7]$

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

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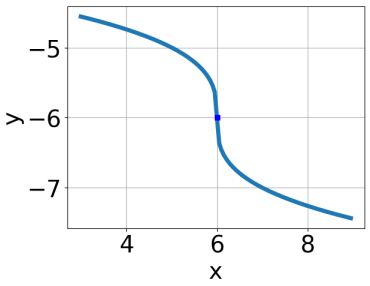
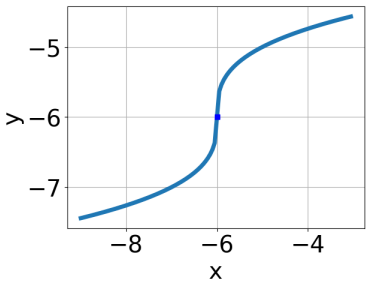
10. Choose the graph of the equation below.

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

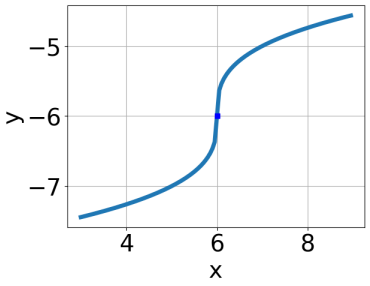
A.



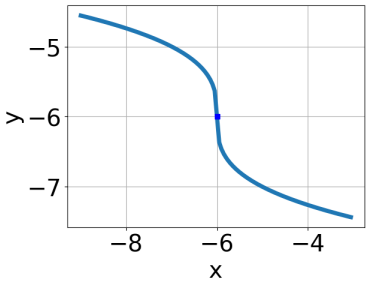
C.



B.



D.



E. None of the above.
