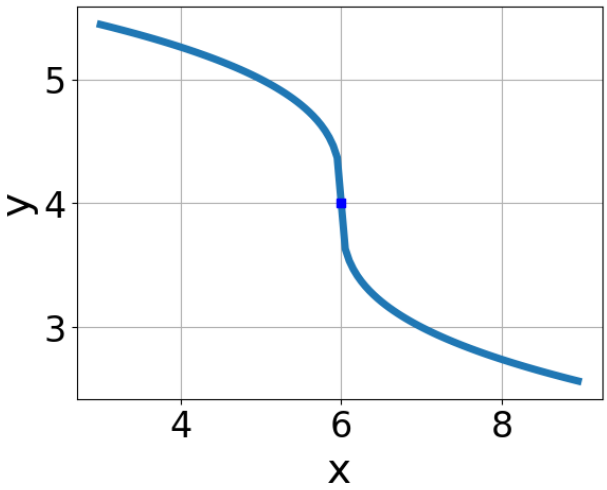
1. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x-6}+4$

B. $f(x) = \sqrt[3]{x-6}+4$

C. $f(x) = -\sqrt[3]{x+6}+4$

D. $f(x) = \sqrt[3]{x+6}+4$

E. None of the above

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2. What is the domain of the function below?

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

A. The domain is $(-\infty, a]$, where $a \in [0.91, 1.3]$

B. The domain is $[a, \infty)$, where $a \in [0.75, 1.12]$

C. The domain is $(-\infty, a]$, where $a \in [0.25, 1.12]$

D. The domain is $[a, \infty)$, where $a \in [1.12, 1.93]$

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

---

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

$$\sqrt{-7x-2} - \sqrt{-8x-3} = 0$$

A. $x \in [-1.9, -0.8]$

B. $x_1 \in [-1.9, -0.8]$ and $x_2 \in [-1.29, 2.71]$

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

D. $x \in [3.9, 5.3]$

E. $x_1 \in [-0.5, 0.3]$ and $x_2 \in [-1.29, 2.71]$

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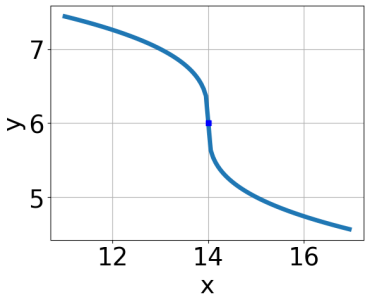
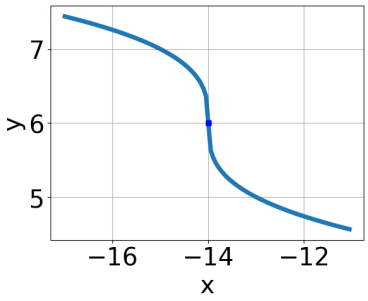
4. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x + 14} + 6$$

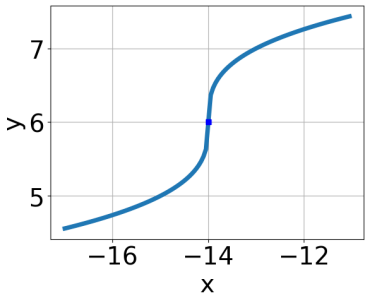
A.



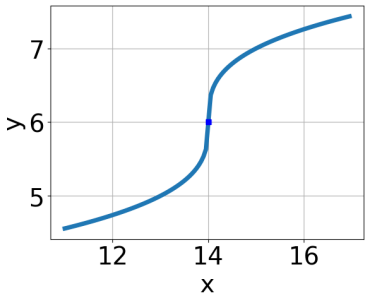
C.



B.



D.



E. None of the above.

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5. What is the domain of the function below?

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

A. The domain is $[a, \infty)$, where $a \in [1.24, 1.78]$

B. The domain is $[a, \infty)$, where $a \in [0.09, 1.13]$

C. The domain is $(-\infty, a]$, where $a \in [1.01, 2.21]$

D. The domain is $(-\infty, a]$, where $a \in [0.13, 1.06]$

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

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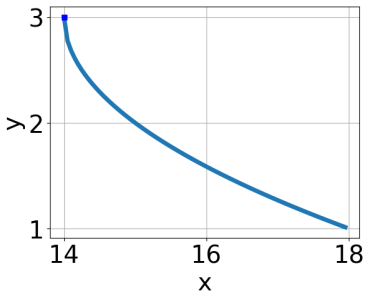
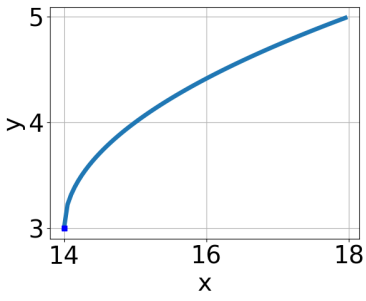
6. Choose the graph of the equation below.

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

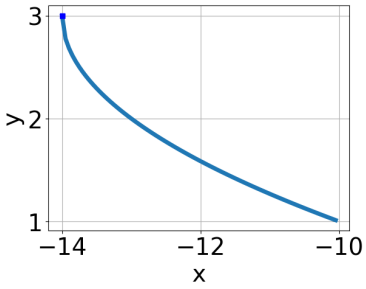
A.



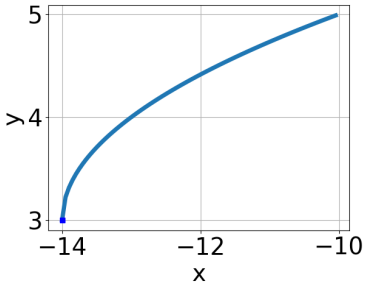
C.



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.

$$\sqrt{-32x^2 - 63} - \sqrt{100x} = 0$$

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

B. $x_1 \in [-2.27, -1.5]$ and $x_2 \in [-5.88, 0.12]$

C. $x \in [-2.27, -1.5]$

D. $x \in [-1.39, -0.84]$

E. $x_1 \in [2.01, 3.28]$ and $x_2 \in [-0.12, 2.88]$

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

$$\sqrt{24x^2 - 28} - \sqrt{-26x} = 0$$

A. $x_1 \in [-4.75, -0.75]$ and $x_2 \in [0.3, 0.8]$

B. $x \in [-4.75, -0.75]$

C. $x_1 \in [-1.33, 2.67]$ and $x_2 \in [0.7, 2.9]$

D. $x \in [-1.33, 2.67]$

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

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

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

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

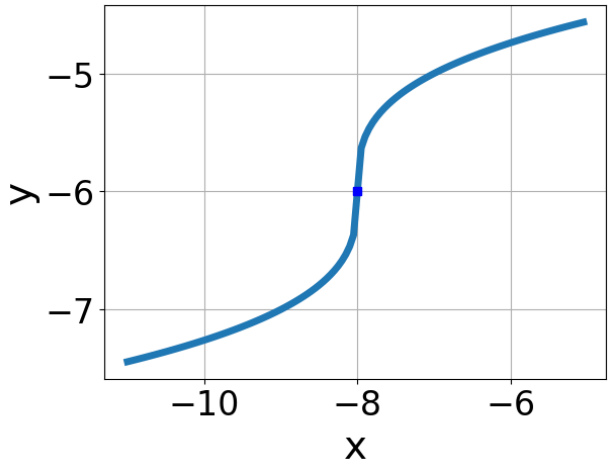
B. $x_1 \in [-5, 3]$ and $x_2 \in [0.33, 3.33]$

C. $x \in [-17, -12]$

D. $x_1 \in [-17, -12]$ and $x_2 \in [0.33, 3.33]$

E. $x \in [-5, 3]$

10. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x-8} - 6$

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

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

D. $f(x) = -\sqrt{x-8} - 6$

E. None of the above
