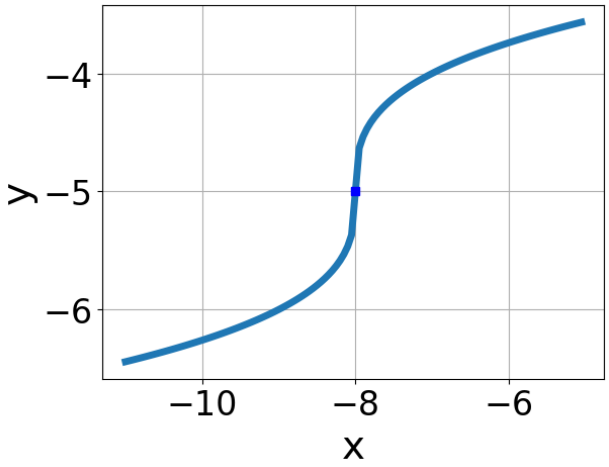
1. Choose the equation of the function graphed below.



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

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

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

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

E. None of the above

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2. What is the domain of the function below?

$$f(x) = \sqrt[6]{5x+3}$$

A. $(-\infty, a]$, where $a \in [-0.63, 1.12]$

B. $[a, \infty)$, where $a \in [-7.67, -0.67]$

C. $(-\infty, a]$, where $a \in [-2.04, -0.92]$

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

E. $[a, \infty)$, where $a \in [-1.6, 4.4]$

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

$$\sqrt{9x+5} - \sqrt{-8x-9} = 0$$

A. $x \in [-1.01, -0.44]$

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

C. $x_1 \in [-1.01, -0.44]$ and $x_2 \in [-3.56, 2.44]$

D. $x \in [-0.53, 0.42]$

E. $x_1 \in [-1.6, -1.06]$ and $x_2 \in [-3.56, 2.44]$

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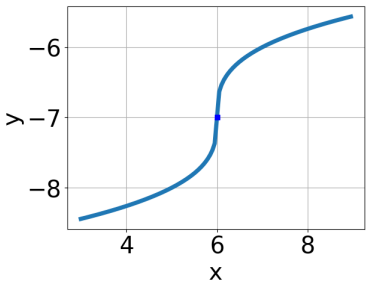
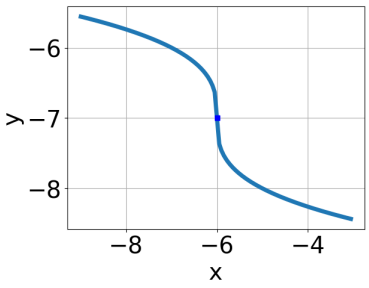
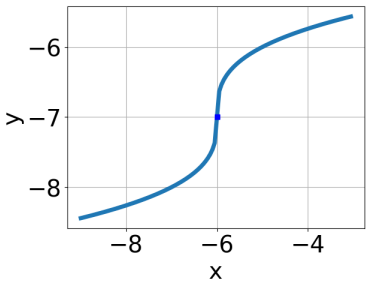
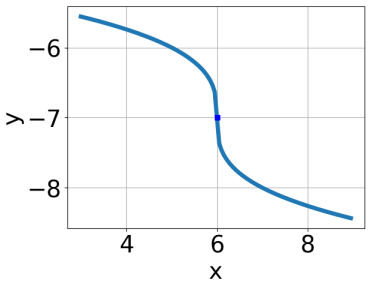
4. Choose the graph of the equation below.

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

A.


C.


B.


D.


E. None of the above.

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5. What is the domain of the function below?

$$f(x) = \sqrt[5]{-6x+7}$$

A. The domain is $[a, \infty)$, where $a \in [-1.3, 0.9]$

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

C. The domain is $(-\infty, a]$, where $a \in [1.04, 1.66]$

D. The domain is $(-\infty, a]$, where $a \in [0.33, 1.07]$

E. The domain is $[a, \infty)$, where $a \in [1.1, 1.7]$

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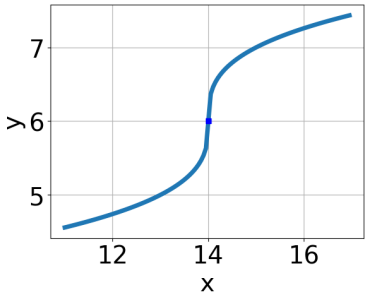
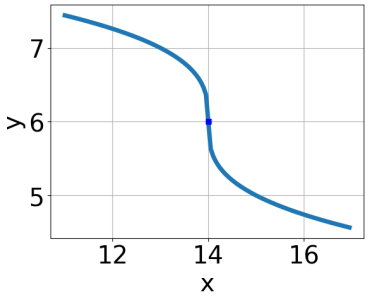
6. Choose the graph of the equation below.

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

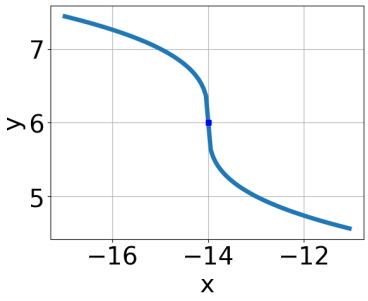
A.



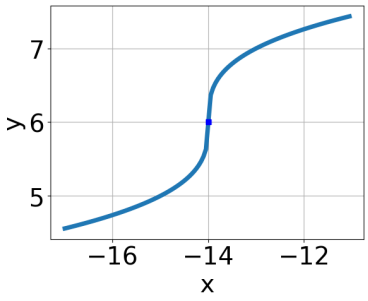
C.



B.



D.



E. None of the above.

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

$$\sqrt{36x^2 + 63} - \sqrt{99x} = 0$$

A. $x_1 \in [0.45, 1.19]$ and $x_2 \in [1.75, 4.75]$

B. $x_1 \in [-1.78, -1.14]$ and $x_2 \in [-4, 1]$

C. $x \in [1.16, 1.94]$

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

E. $x \in [0.45, 1.19]$

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

$$\sqrt{-24x^2 + 45} - \sqrt{-57x} = 0$$

A. $x_1 \in [0, 1.7]$ and $x_2 \in [1, 5]$

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

C. $x_1 \in [-1.5, -0.5]$ and $x_2 \in [1, 5]$

D. $x \in [2.3, 3.4]$

E. $x \in [-1.5, -0.5]$

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

$$\sqrt{5x - 2} - \sqrt{-4x + 6} = 0$$

A. $x_1 \in [-0.11, 0.61]$ and $x_2 \in [0.45, 1.22]$

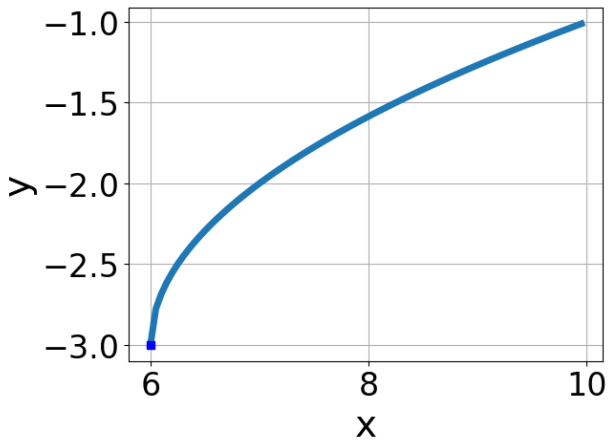
B. $x \in [0.73, 1.17]$

C. $x_1 \in [-0.11, 0.61]$ and $x_2 \in [1.09, 1.53]$

D. $x \in [-0.82, -0.25]$

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

10. Choose the equation of the function graphed below.



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

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

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

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

E. None of the above
