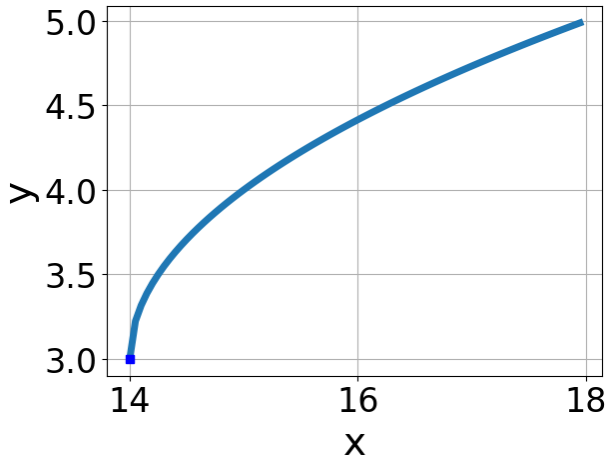
1. Choose the equation of the function graphed below.



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

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

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

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

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.

$$\sqrt{-36x^2 + 45} - \sqrt{-24x} = 0$$

A. $x \in [1.23, 2.78]$

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

C. $x_1 \in [-1.04, 0.3]$ and $x_2 \in [-0.5, 6.5]$

D. $x \in [-1.04, 0.3]$

E. $x_1 \in [0.17, 1.36]$ and $x_2 \in [-0.5, 6.5]$

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

$$\sqrt{-28x^2 - 18} - \sqrt{50x} = 0$$

A. $x \in [-1.42, -0.6]$

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

C. $x_1 \in [0.87, 1.39]$ and $x_2 \in [-0.03, 1.6]$

D. $x \in [-0.8, 0.1]$

E. $x_1 \in [-1.42, -0.6]$ and $x_2 \in [-1.61, -0.24]$

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4. What is the domain of the function below?

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

A. The domain is $(-\infty, a]$, where $a \in [-2.3, 0.4]$

B. The domain is $[a, \infty)$, where $a \in [-1.3, 3.4]$

C. The domain is $[a, \infty)$, where $a \in [-6.5, -1.9]$

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

E. The domain is $(-\infty, a]$, where $a \in [-3.6, -1.8]$

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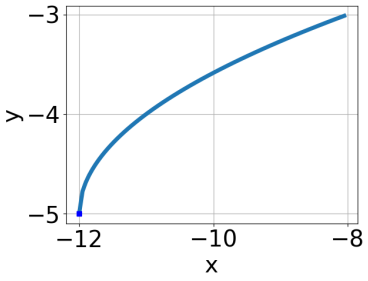
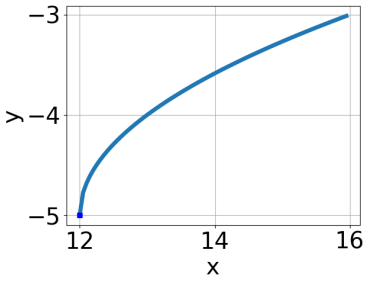
5. Choose the graph of the equation below.

$$f(x) = -\sqrt{x - 12} - 5$$

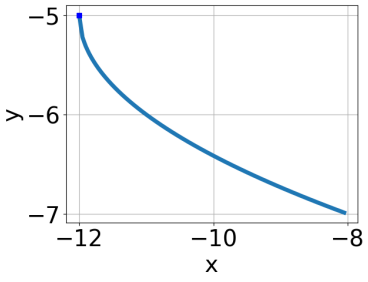
A.



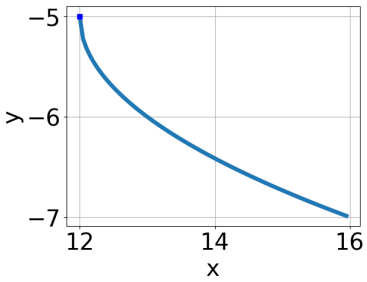
C.



B.



D.



E. None of the above.

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6. What is the domain of the function below?

$$f(x) = \sqrt[5]{4x - 7}$$

A. The domain is $[a, \infty)$, where $a \in [0.91, 1.99]$

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

C. The domain is $[a, \infty)$, where $a \in [0.55, 0.59]$

D. The domain is $(-\infty, a]$, where $a \in [-0.83, 1.04]$

E. The domain is $(-\infty, a]$, where $a \in [0.78, 2.19]$

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

$$\sqrt{-7x + 7} - \sqrt{-9x - 3} = 0$$

A. $x_1 \in [-5.06, -4.58]$ and $x_2 \in [1, 6]$

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

C. $x \in [-2.4, -1.6]$

D. $x \in [-5.06, -4.58]$

E. $x_1 \in [-1.35, -0.17]$ and $x_2 \in [1, 6]$

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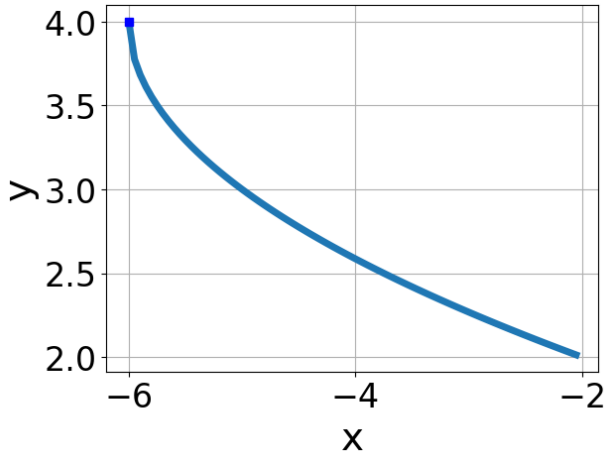
8. Choose the equation of the function graphed below.



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

B. $f(x) = \sqrt{x+6}+4$

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

D. $f(x) = -\sqrt{x+6}+4$

E. None of the above

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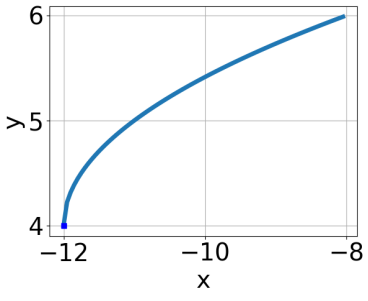
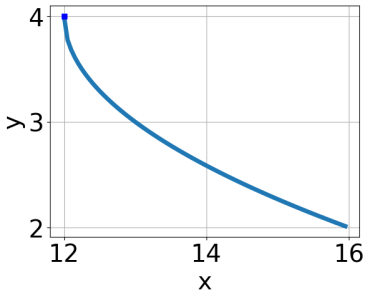
9. Choose the graph of the equation below.

$$f(x) = -\sqrt{x+12}+4$$

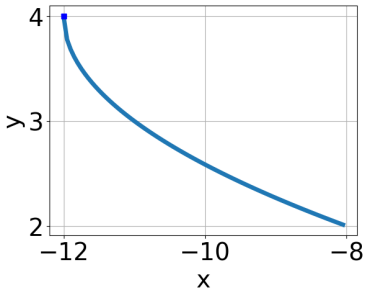
A.



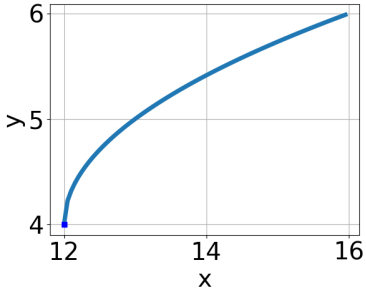
C.



B.



D.



E. None of the above.

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

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

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

B. $x \in [-0.02, 0.35]$

C. $x_1 \in [-0.69, -0.03]$ and $x_2 \in [-0.56, 0.44]$

D. $x_1 \in [-1.36, -0.73]$ and $x_2 \in [-0.56, 0.44]$

E. $x \in [-0.69, -0.03]$
