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

$$\sqrt{-27x^2+16}-\sqrt{24x}=0$$

A. $x_1 \in [-3, 0]$ and $x_2 \in [-1.9, 0.5]$

B. $x \in [-3, 0]$

C. $x_1 \in [0, 6]$ and $x_2 \in [0.7, 2]$

D. $x \in [0, 6]$

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

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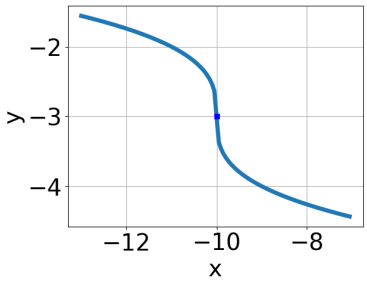
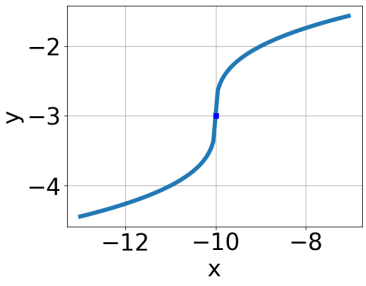
2. Choose the graph of the equation below.

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

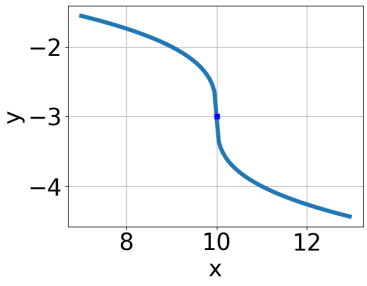
A.



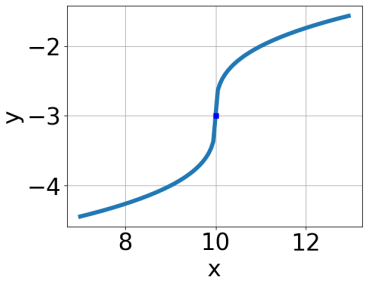
C.



B.



D.



E. None of the above.

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

$$\sqrt{-9x+5} - \sqrt{-4x+2} = 0$$

A. $x \in [1.4, 1.49]$

B. $x_1 \in [0.55, 0.56]$ and $x_2 \in [0.59, 0.64]$

C. $x \in [0.59, 0.61]$

D. $x_1 \in [0.43, 0.53]$ and $x_2 \in [0.5, 0.58]$

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

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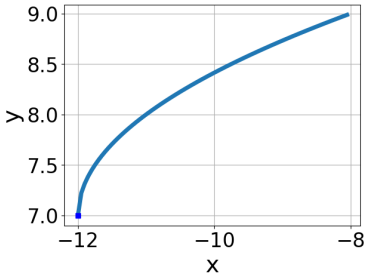
4. Choose the equation of the function graphed below.



A. $f(x) = \sqrt[3]{x-8} + 4$

B. $f(x) = \sqrt[3]{x+8} + 4$

C. $f(x) = -\sqrt[3]{x+8} + 4$

D. $f(x) = -\sqrt[3]{x-8} + 4$

E. None of the above

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5. What is the domain of the function below?

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

A. The domain is $[a, \infty)$, where $a \in [-0.3, 1.2]$

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

C. The domain is $(-\infty, a]$, where $a \in [-2.1, 1.9]$

D. The domain is $(-\infty, a]$, where $a \in [0.7, 4.1]$

E. The domain is $[a, \infty)$, where $a \in [1.9, 4]$
