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

$$\sqrt{-9x-3} - \sqrt{-7x-5} = 0$$

   A. $x_1 \in [-1.1, -0.39]$ and $x_2 \in [-0.9, 0.08]$

   B. $x \in [0.84, 1.45]$

   C. $x_1 \in [-0.48, 0.13]$ and $x_2 \in [0.42, 1.28]$

   D. $x \in [-4.15, -3.84]$

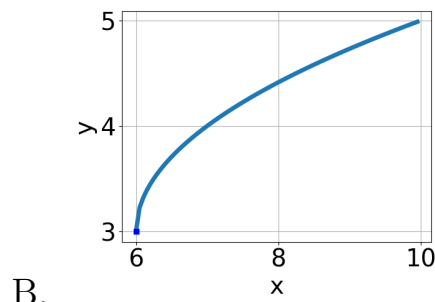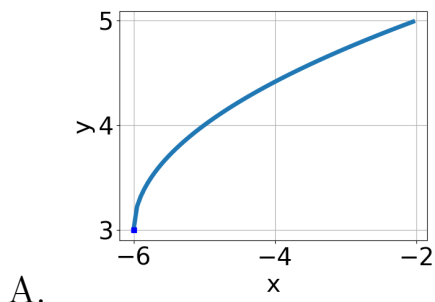   E. All solutions lead to invalid or complex values in the equation.

2. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.
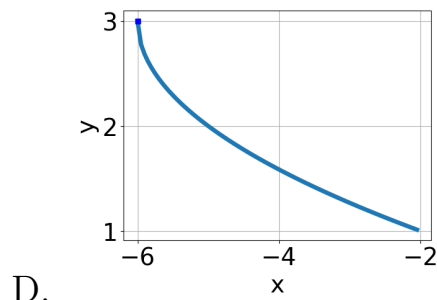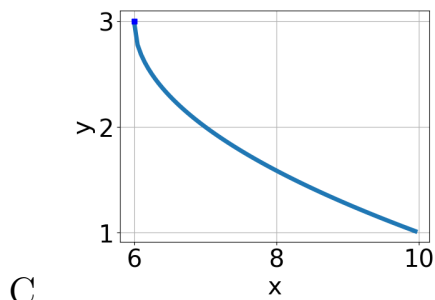
$$\sqrt{-8x^2 - 25} - \sqrt{-30x} = 0$$

   A. $x_1 \in [0.5, 1.5]$ and $x_2 \in [2.5, 7.5]$

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

   C. $x_1 \in [-2.6, 0.8]$ and $x_2 \in [-6.5, 0.5]$

   D. $x \in [0.5, 1.5]$

   E. $x \in [1.3, 2.7]$
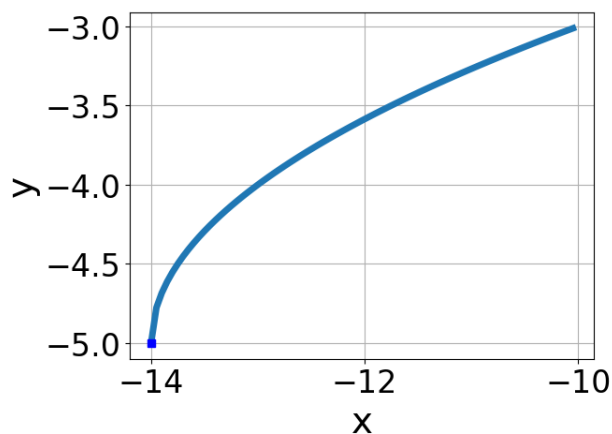
3. Choose the graph of the equation below.

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

A.   B.

C.

D.

E. None of the above.

4. Choose the equation of the function graphed below.
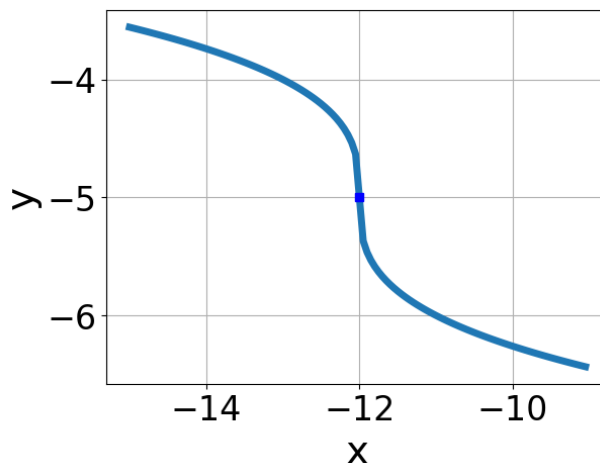

A. $f(x) = \sqrt[3]{x + 14} - 5$

B. $f(x) = \sqrt[3]{x - 14} - 5$

C. $f(x) = -\sqrt[3]{x + 14} - 5$

D. $f(x) = -\sqrt[3]{x - 14} - 5$

E. None of the above

5. Choose the equation of the function graphed below.

A. $f(x) = \sqrt[3]{x + 12} - 5$

B. $f(x) = -\sqrt[3]{x + 12} - 5$

C. $f(x) = -\sqrt[3]{x - 12} - 5$

D. $f(x) = \sqrt[3]{x - 12} - 5$

E. None of the above

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

$$\sqrt{8x - 2} - \sqrt{6x + 2} = 0$$

A. $x_1 \in [-0.66, -0.14]$ and $x_2 \in [0, 1.3]$

B. $x \in [-0.19, 0.13]$

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

D. $x_1 \in [0.06, 0.62]$ and $x_2 \in [1.5, 3.2]$

E. $x \in [1.83, 2.24]$

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7. What is the domain of the function below?

$$f(x) = \sqrt[4]{8x - 5}$$

A. $[a, \infty)$, where $a \in [-1.2, 0.8]$

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

C. $(-\infty, a]$, where $a \in [-0.8, 1.1]$

D. $[a, \infty)$, where $a \in [1.1, 4.8]$

E. $(-\infty, a]$, where $a \in [1.5, 2.9]$

8. What is the domain of the function below?

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

A. The domain is $[a, \infty)$, where $a \in [-4.75, -0.75]$

B. The domain is $[a, \infty)$, where $a \in [-1.57, 2.43]$

C. The domain is $(-\infty, a]$, where $a \in [-2.6, -0.7]$

D. The domain is $(-\infty, a]$, where $a \in [-1.2, -0.4]$
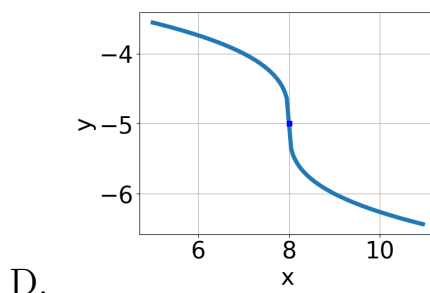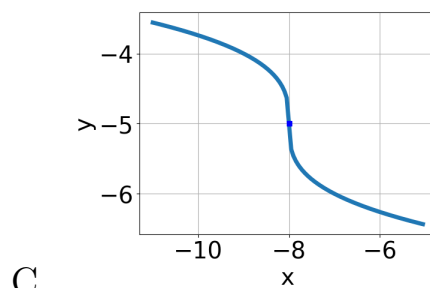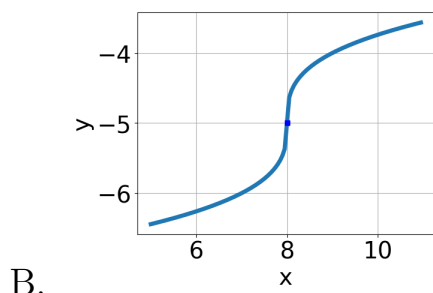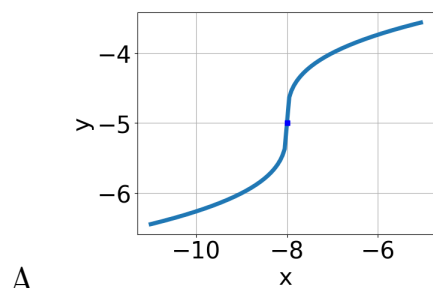
E. $(-\infty, \infty)$

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

$$\sqrt{12x^2 - 28} - \sqrt{5x} = 0$$

A. $x_1 \in [0.7, 1.7]$ and $x_2 \in [-5.25, 2.75]$

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

C. $x \in [1.6, 2.7]$

D. $x \in [-2.1, -0.6]$

E. $x_1 \in [-2.1, -0.6]$ and $x_2 \in [-5.25, 2.75]$

10. Choose the graph of the equation below.

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

A.

B.

C.

D.

E. None of the above.