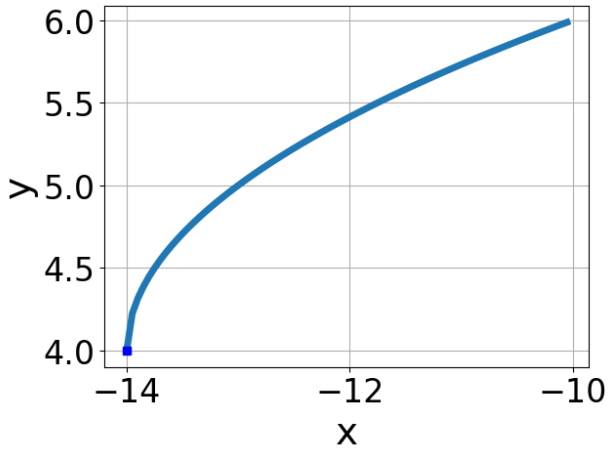
1. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x+14}+4$

B. $f(x) = -\sqrt{x+14}+4$

C. $f(x) = \sqrt{x-14}+4$

D. $f(x) = -\sqrt{x-14}+4$

E. None of the above

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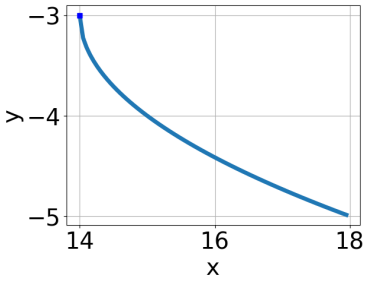
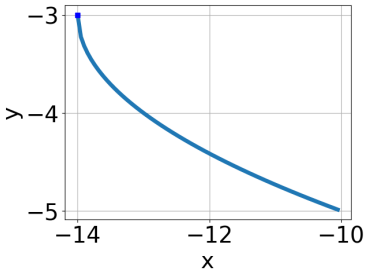
2. Choose the graph of the equation below.

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

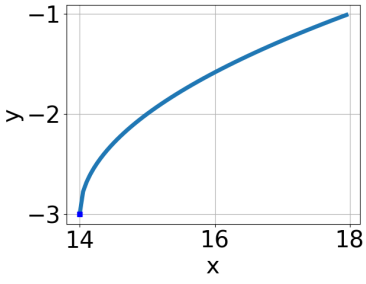
A.



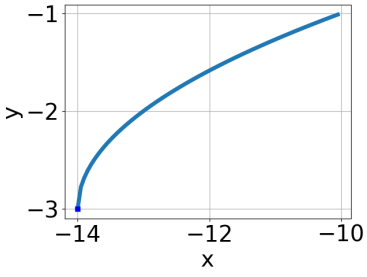
C.



B.



D.



E. None of the above.

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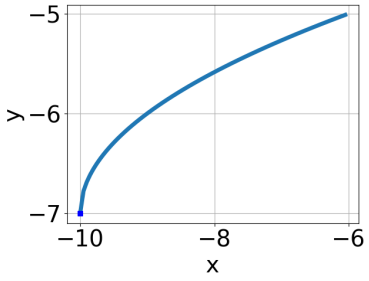
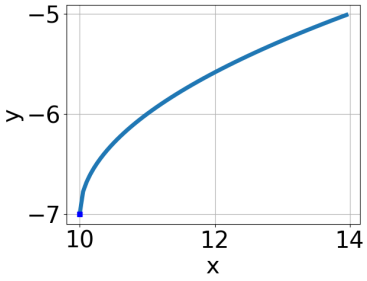
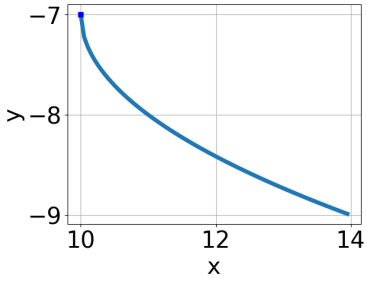
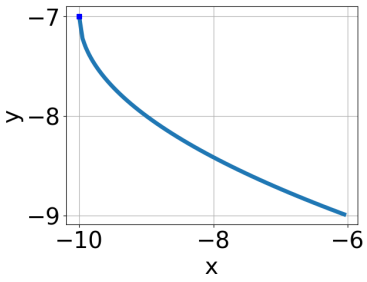
3. Choose the graph of the equation below.

$$f(x) = -\sqrt{x+10} - 7$$

A.


C.


B.


D.


E. None of the above.

---

4. What is the domain of the function below?

$$f(x) = \sqrt[6]{4x+8}$$

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

B. $[a, \infty)$, where $a \in [-0.93, 0.16]$

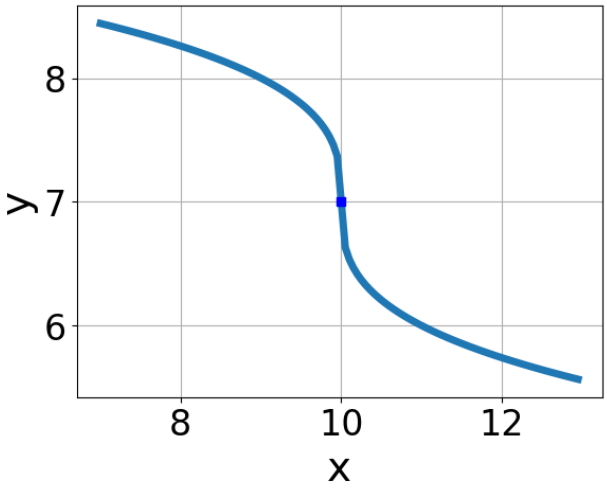
C. $(-\infty, a]$, where $a \in [-1.39, 1.52]$

D. $(-\infty, a]$, where $a \in [-2.94, -1.31]$

E. $[a, \infty)$, where $a \in [-4.25, -1.94]$

---

5. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x - 10} + 7$

B. $f(x) = \sqrt{x + 10} + 7$

C. $f(x) = -\sqrt{x + 10} + 7$

D. $f(x) = -\sqrt{x - 10} + 7$

E. None of the above

---

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

$$\sqrt{-54x^2 - 18} - \sqrt{93x} = 0$$

A. $x_1 \in [-1.54, -1.37]$ and $x_2 \in [-1.96, -0.08]$

B. $x \in [-1.23, 1.19]$

C. $x \in [-1.54, -1.37]$

D. $x_1 \in [1.43, 2.19]$ and $x_2 \in [0.01, 0.73]$

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

---

7. What is the domain of the function below?

$$f(x) = \sqrt[7]{-9x - 3}$$

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

B. The domain is $(-\infty, a]$, where $a \in [-1.33, 2.67]$

C. The domain is $[a, \infty)$, where $a \in [-0.8, 0.9]$

D. The domain is $(-\infty, a]$, where $a \in [-7, -1]$

E. The domain is $[a, \infty)$, where $a \in [-4.7, -1.9]$

---

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

$$\sqrt{-7x-4} - \sqrt{-3x-6} = 0$$

A. $x \in [0.29, 1.38]$

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

C. $x_1 \in [-0.7, -0.55]$ and $x_2 \in [0.1, 2.2]$

D. $x_1 \in [-2.24, -1.59]$ and $x_2 \in [-1.9, -0.3]$

E. $x \in [-3.06, -2.35]$

---

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

$$\sqrt{6x-8} - \sqrt{9x-9} = 0$$

A. $x_1 \in [0.77, 1.72]$ and $x_2 \in [0.33, 6.33]$

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

C. $x \in [-0.74, 0.91]$

D. $x_1 \in [-0.74, 0.91]$ and $x_2 \in [0.33, 6.33]$

E. $x \in [-6.57, -4.96]$

---

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

$$\sqrt{16x^2+40} - \sqrt{56x} = 0$$

A. $x_1 \in [-5.9, -1.2]$ and $x_2 \in [-4, 1]$

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

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

D. $x_1 \in [-0.8, 1.9]$ and $x_2 \in [0.5, 5.5]$

E. $x \in [1.5, 3.3]$
