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

$$\sqrt{21x^2 + 10} - \sqrt{-29x} = 0$$

A. $x_1 \in [-0.72, -0.71]$ and $x_2 \in [-1.4, 0.4]$

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

C. $x_1 \in [0.65, 0.67]$ and $x_2 \in [0, 1.3]$

D. $x \in [-0.69, -0.66]$

E. $x \in [-0.72, -0.71]$

---

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

$$\sqrt{20x^2 + 36} - \sqrt{-61x} = 0$$

A. $x_1 \in [-3.8, -1]$ and $x_2 \in [-3.8, 0.2]$

B. $x \in [-1.4, 0.2]$

C. $x \in [-3.8, -1]$

D. $x_1 \in [-0.2, 1]$ and $x_2 \in [2.25, 4.25]$

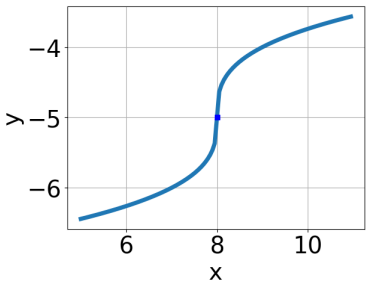
E. All solutions lead to invalid or complex values in the equation.

---

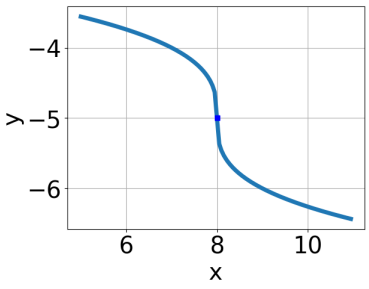
3. Choose the graph of the equation below.

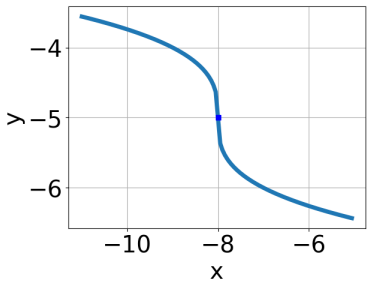
$$f(x) = -\sqrt[3]{x - 8} - 5$$

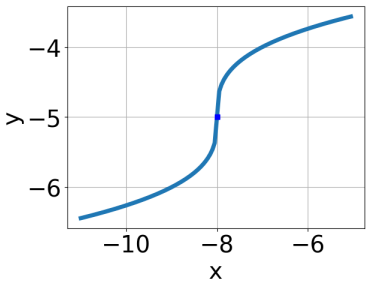
A.



B.



C. 

D. 

E. None of the above.

---

4. What is the domain of the function below?

$$f(x) = \sqrt[6]{-9x + 8}$$

A. $[a, \infty)$, where $a \in [0.95, 1.35]$

B. $(-\infty, a]$, where $a \in [0.97, 1.67]$

C. $[a, \infty)$, where $a \in [0.56, 0.99]$

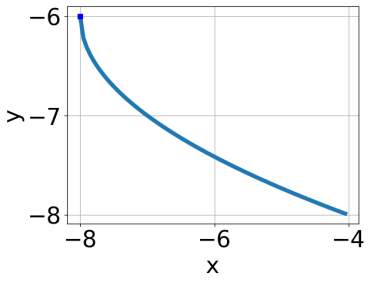
D. $(-\infty, a]$, where $a \in [0.02, 1.1]$

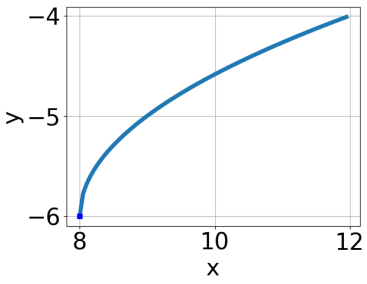
E. $(-\infty, \infty)$

---

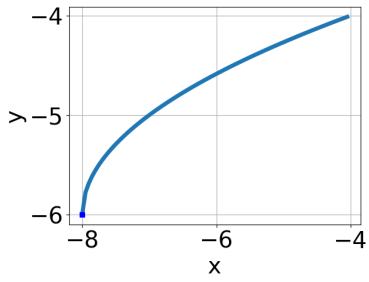
5. Choose the graph of the equation below.

$$f(x) = -\sqrt{x - 8} - 6$$

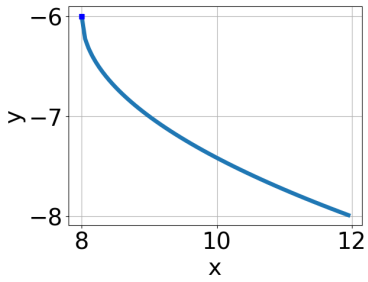
A. 

B. 

C.



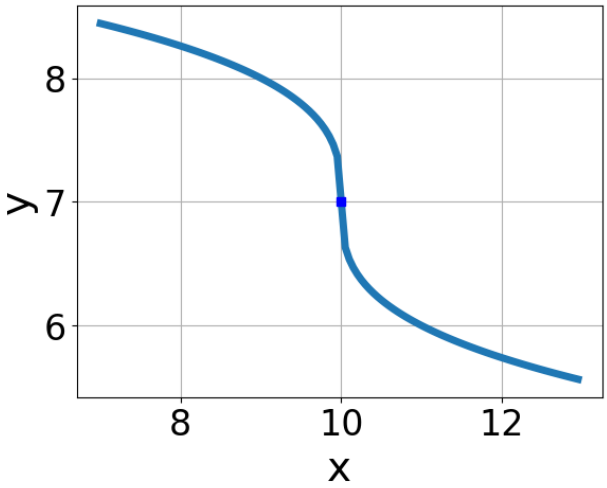
D.



E. None of the above.

---

6. 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

---

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

$$\sqrt{-2x+2} - \sqrt{-9x-7} = 0$$

A. $x_1 \in [-1.16, -0.17]$ and $x_2 \in [-6, 6]$

B. $x_1 \in [-1.42, -1.05]$ and $x_2 \in [-6, 6]$

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

D. $x \in [-1.42, -1.05]$

E. $x \in [0.48, 0.82]$

---

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

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

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

B. $x \in [-1.23, 0.77]$

C. $x \in [1, 4]$

D. $x_1 \in [1, 4]$ and $x_2 \in [1, 2]$

E. $x_1 \in [1, 4]$ and $x_2 \in [1, 2]$

---

9. What is the domain of the function below?

$$f(x) = \sqrt[8]{9x+6}$$

A. $(-\infty, a]$, where $a \in [-2.53, -1.09]$

B. $[a, \infty)$, where $a \in [-1.98, -1.19]$

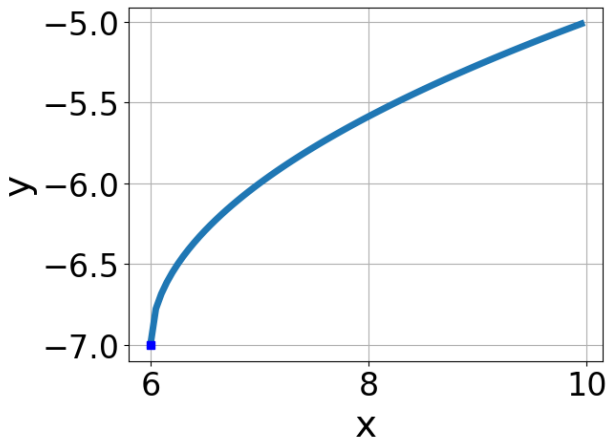
C. $(-\infty, \infty)$

D. $(-\infty, a]$, where $a \in [-0.9, -0.6]$

E. $[a, \infty)$, where $a \in [-1.45, 0.18]$

---

10. Choose the equation of the function graphed below.



A. $f(x) = \sqrt{x+6} - 7$

B. $f(x) = -\sqrt{x-6} - 7$

C. $f(x) = -\sqrt{x+6} - 7$

D. $f(x) = \sqrt{x-6} - 7$

E. None of the above
