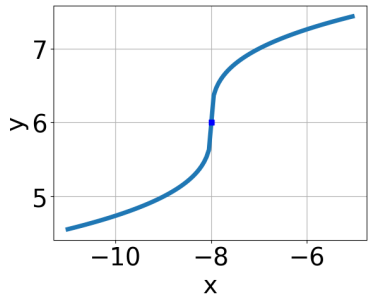
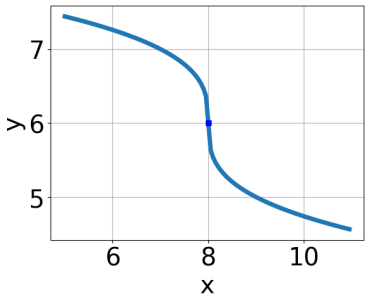
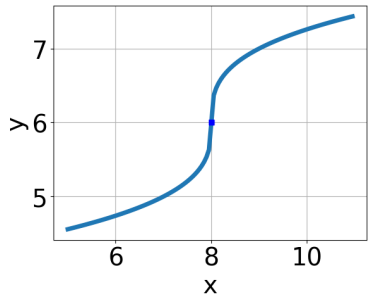
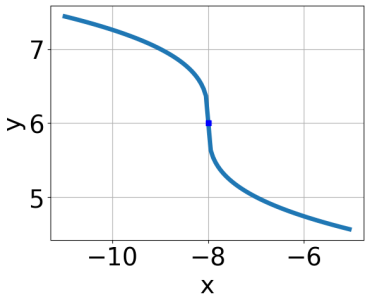
1. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x-8} + 6$$

A.


C.


B.


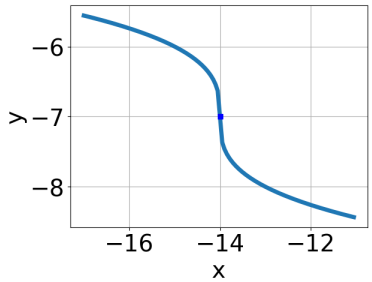
D.


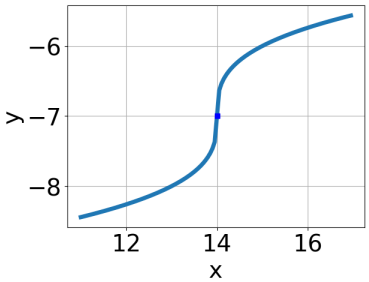
E. None of the above.

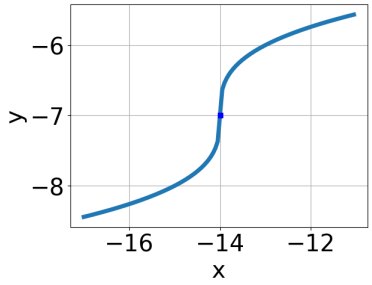
---

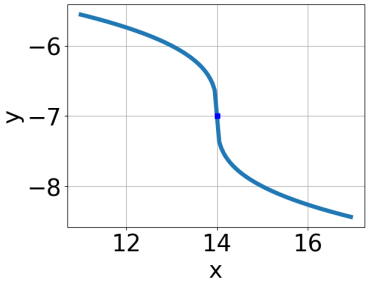
2. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x+14} - 7$$

A.


C.


B.


D.


E. None of the above.

---

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

$$\sqrt{14x^2 - 72} - \sqrt{-38x} = 0$$

A. $x_1 \in [-2.71, 5.29]$ and $x_2 \in [4, 5]$

B. $x \in [-4, -1]$

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

D. $x \in [-2.71, 5.29]$

E. $x_1 \in [-4, -1]$ and $x_2 \in [-2.71, 2.29]$

---

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

$$\sqrt{8x - 6} - \sqrt{-8x - 4} = 0$$

A. $x_1 \in [-0.96, -0.29]$ and $x_2 \in [-0.25, 5.75]$

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

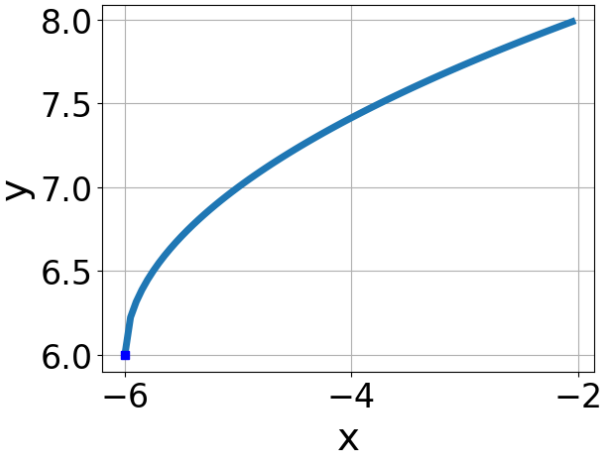
C. $x \in [0.48, 0.65]$

D. $x_1 \in [-0.43, 0.17]$ and $x_2 \in [-0.25, 5.75]$

E. $x \in [-0.43, 0.17]$

---

5. Choose the equation of the function graphed below.



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

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

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

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

E. None of the above

---

6. What is the domain of the function below?

$$f(x) = \sqrt[7]{-6x+8}$$

A. The domain is $(-\infty, a]$, where $a \in [0.99, 1.37]$

B. The domain is $[a, \infty)$, where $a \in [0.85, 1.64]$

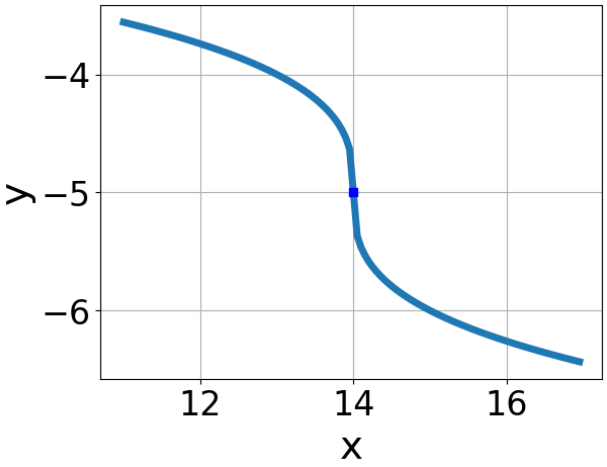
C. $(-\infty, \infty)$

D. The domain is $[a, \infty)$, where $a \in [0.71, 1.21]$

E. The domain is $(-\infty, a]$, where $a \in [0.49, 1.26]$

---

7. 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

---

8. What is the domain of the function below?

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

A. The domain is $(-\infty, a]$, where $a \in [-2.3, 1.1]$

B. The domain is $[a, \infty)$, where $a \in [0.46, 1.57]$

C. The domain is $(-\infty, a]$, where $a \in [1.2, 2.1]$

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

E. The domain is $[a, \infty)$, where $a \in [0.72, 3.83]$

---

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

$$\sqrt{12x^2+14} - \sqrt{-34x} = 0$$

A. $x \in [-0.92, -0.49]$

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

C. $x \in [-3.06, -1.82]$

D. $x_1 \in [-0.27, 0.9]$ and $x_2 \in [1.33, 4.33]$

E. $x_1 \in [-3.06, -1.82]$ and $x_2 \in [-1.5, 0.5]$

---

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

$$\sqrt{-3x-2} - \sqrt{4x+6} = 0$$

A. $x \in [-0.09, 2.26]$

B. $x \in [-1.25, -0.58]$

C. $x_1 \in [-1.88, -1.2]$ and $x_2 \in [-2.67, 3.33]$

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

E. $x_1 \in [-1.25, -0.58]$ and $x_2 \in [-2.67, 3.33]$
