Radical Functions … Set 2

Graphing Radicals

Identify the domain and range of each.

1) $y = \sqrt{x-2} + 5$

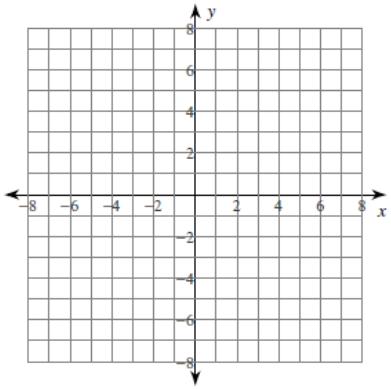
2) $y = \sqrt{x+2} - 3$

3) $y = \sqrt[3]{x+1} - 4$

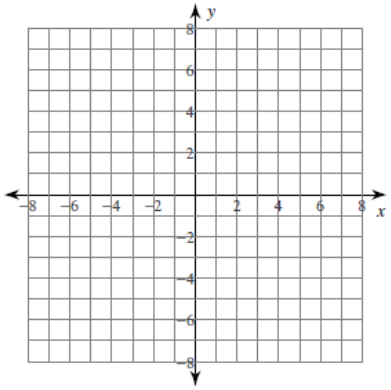
4) $y = \sqrt[3]{x-1} - 1$

Sketch the graph of each function.

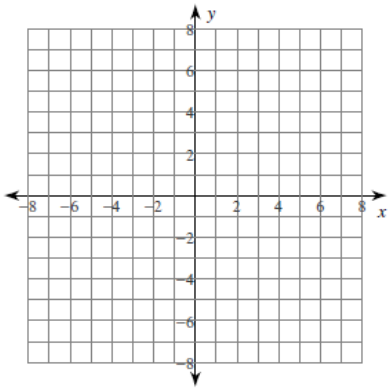
5) $y = \sqrt{x} + 5$



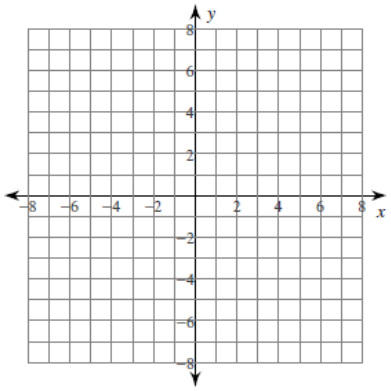
6) $y = \sqrt{x} - 2$



7) $y = 3 + \sqrt{x}$



8) $y = \sqrt{x} + 4$



Radical Functions … Set 2

Answers

Identify the domain and range of each.

1) $y = \sqrt{x-2} + 5$

Domain: $x \geq 2$
Range: $y \geq 5$

2) $y = \sqrt{x+2} - 3$

Domain: $x \geq -2$
Range: $y \geq -3$

3) $y = \sqrt[3]{x+1} - 4$

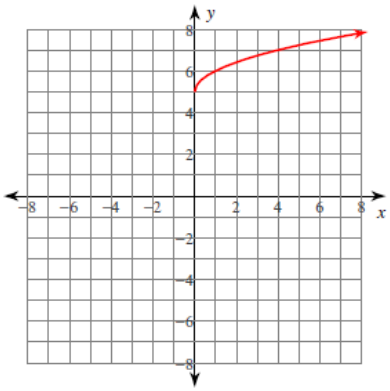
Domain: { All real numbers. }
Range: { All real numbers. }

4) $y = \sqrt[3]{x-1} - 1$

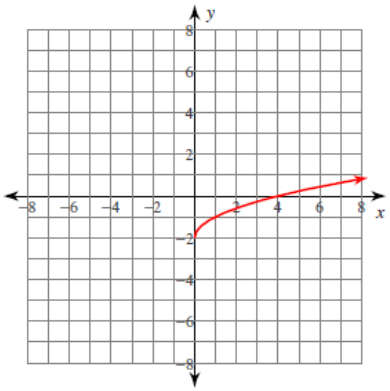
Domain: { All real numbers. }
Range: { All real numbers. }

Sketch the graph of each function.

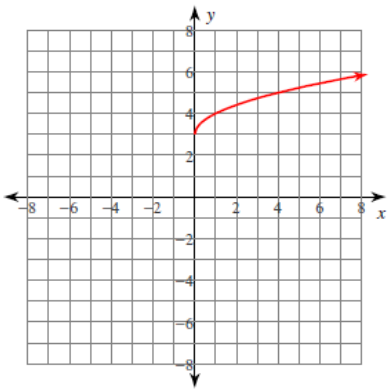
5) $y = \sqrt{x} + 5$



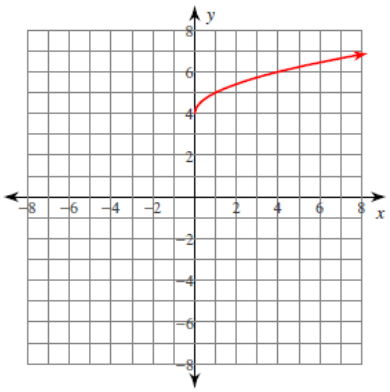
6) $y = \sqrt{x} - 2$



7) $y = 3 + \sqrt{x}$

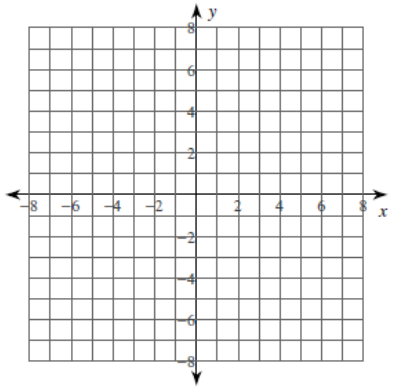


8) $y = \sqrt{x} + 4$

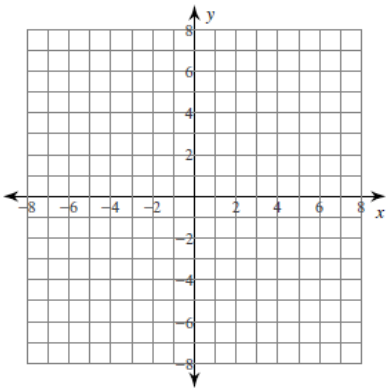


Radical Functions … Set 2

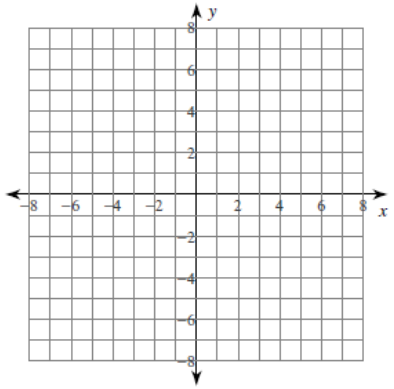
9) $y = -2\sqrt{x+2}$



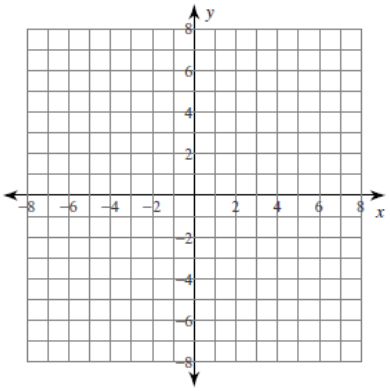
10) $y = \frac{1}{2}\sqrt[3]{x+1} + 4$



11) $y = \sqrt{x-4} - 2$

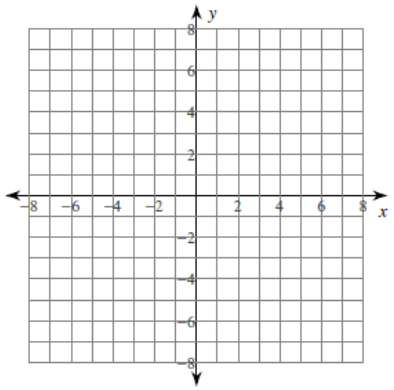


12) $y = -2 + \sqrt[3]{x}$

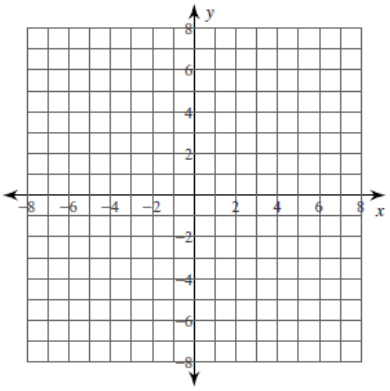


Identify the domain and range of each. Then sketch the graph.

13) $y = 4\sqrt{x-2} - 1$



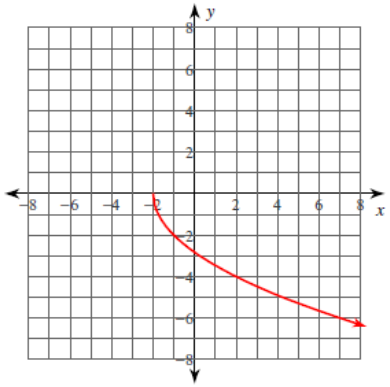
14) $y = -\frac{3}{4}\sqrt{x-1} + 4$



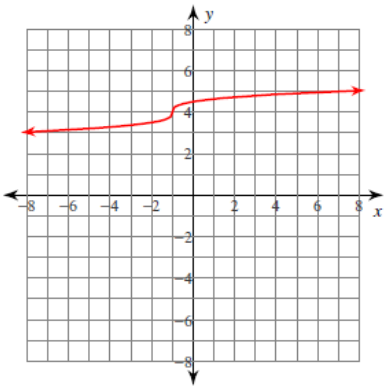
Radical Functions … Set 2

Answers

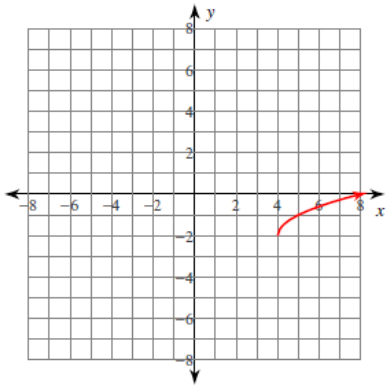
9) $y = -2\sqrt{x+2}$



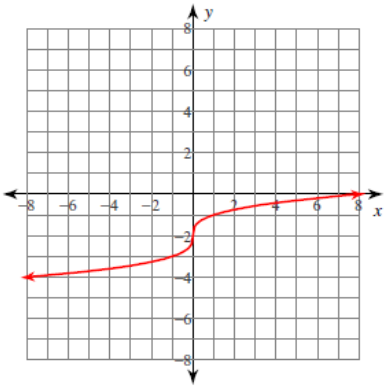
10) $y = \frac{1}{2}\sqrt[3]{x+1} + 4$



11) $y = \sqrt{x-4} - 2$

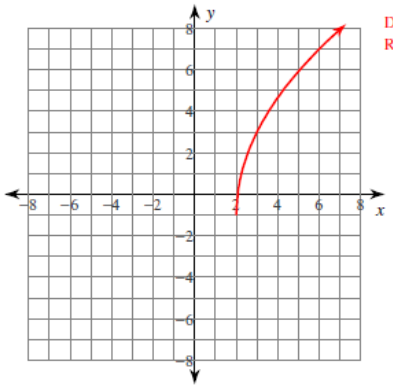


12) $y = -2 + \sqrt[3]{x}$



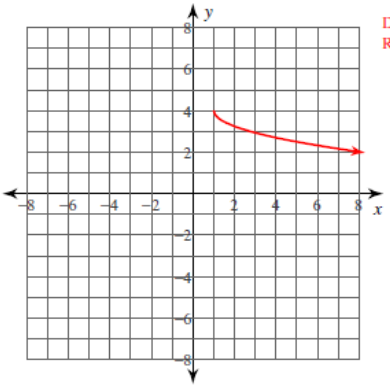
Identify the domain and range of each. Then sketch the graph.

13) $y = 4\sqrt{x-2} - 1$



Domain: $x \geq 2$
Range: $y \geq -1$

14) $y = -\frac{3}{4}\sqrt{x-1} + 4$



Domain: $x \geq 1$
Range: $y \leq 4$