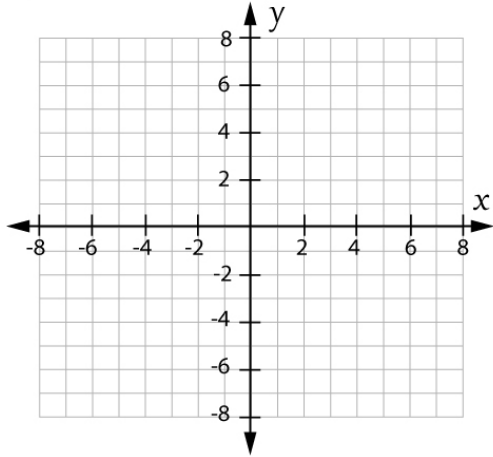


# Graphing Radical Equations

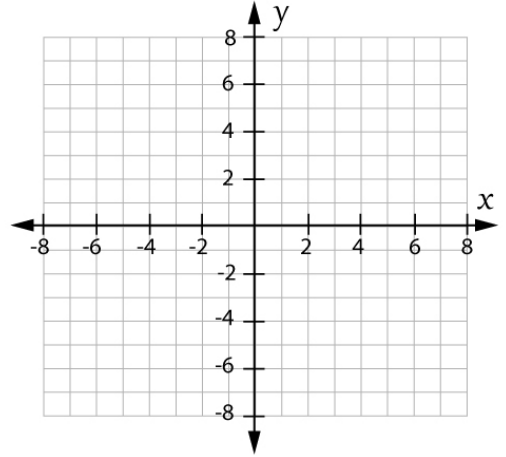
Sketch the graph. Then identify the domain and range.

①  $y = \sqrt{x+4}$



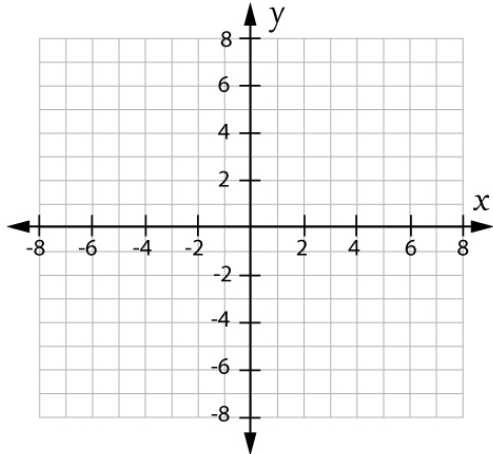
domain: \_\_\_\_\_ range: \_\_\_\_\_

②  $y = \sqrt{x-2} + 2$



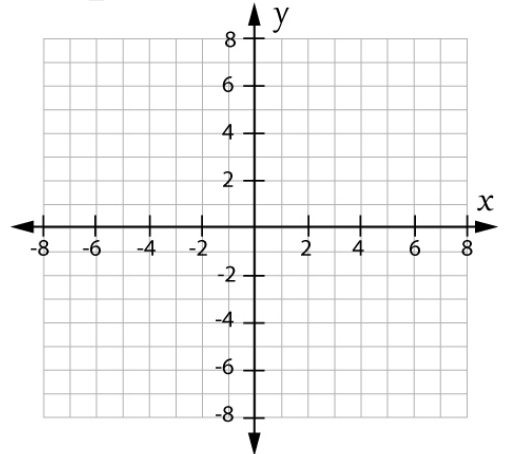
domain: \_\_\_\_\_ range: \_\_\_\_\_

③  $y = -2\sqrt{x+2}$



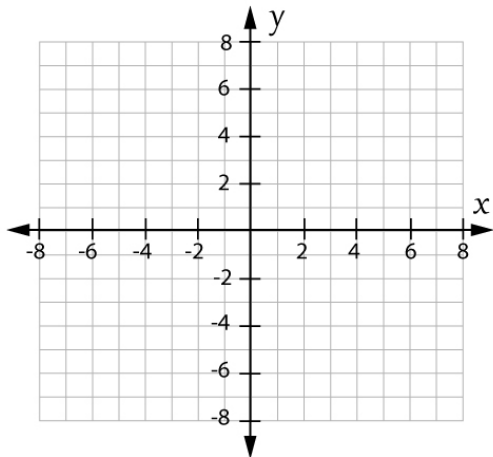
domain: \_\_\_\_\_ range: \_\_\_\_\_

④  $y = \frac{1}{2}\sqrt{x-1} + 1$



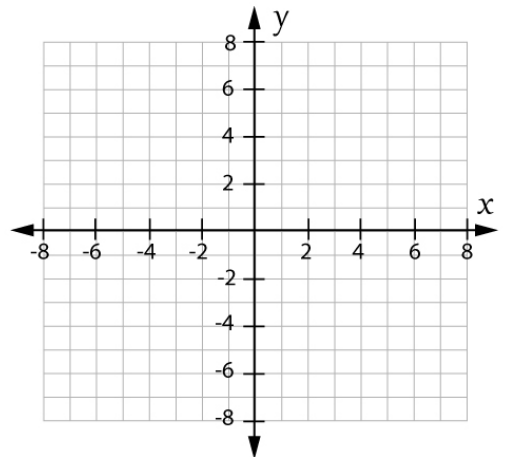
domain: \_\_\_\_\_ range: \_\_\_\_\_

⑤  $y = \sqrt{-x+1} - 3$



domain: \_\_\_\_\_ range: \_\_\_\_\_

⑥  $y = \sqrt{3x-6}$

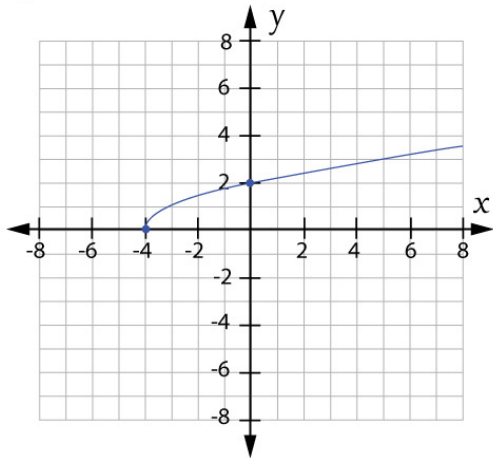


domain: \_\_\_\_\_ range: \_\_\_\_\_

# Graphing Radical Equations

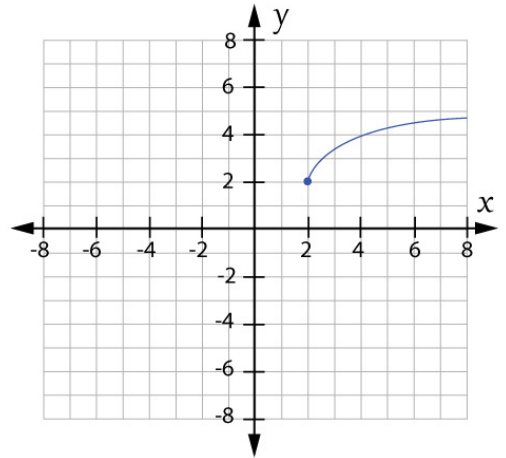
## Answers

①  $y = \sqrt{x+4}$



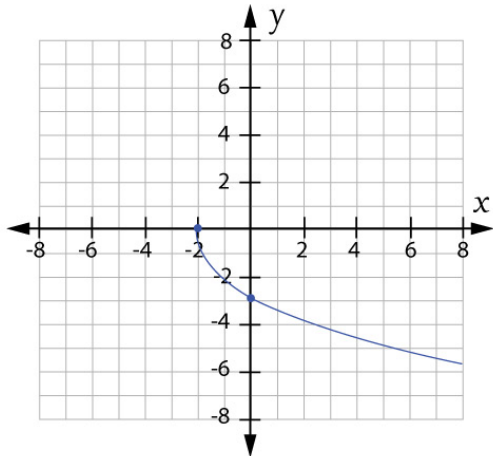
domain:  $\left[ \begin{array}{l} \text{Solution: } x \geq -4 \\ \text{Interval Notation: } [-4, \infty) \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \geq 0 \\ \text{Interval Notation: } [0, \infty) \end{array} \right]$

②  $y = \sqrt{x-2} + 2$



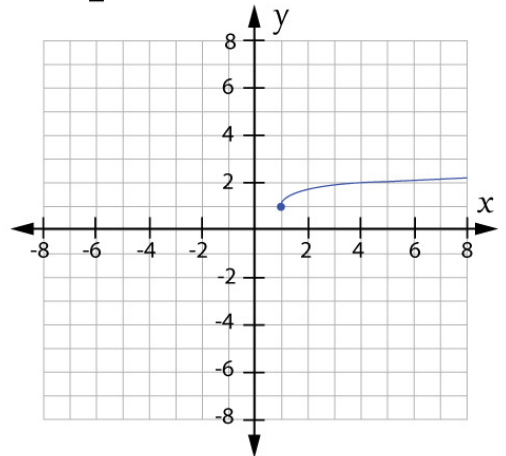
domain:  $\left[ \begin{array}{l} \text{Solution: } x \geq 2 \\ \text{Interval Notation: } [2, \infty) \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \geq 2 \\ \text{Interval Notation: } [2, \infty) \end{array} \right]$

③  $y = -2\sqrt{x+2}$



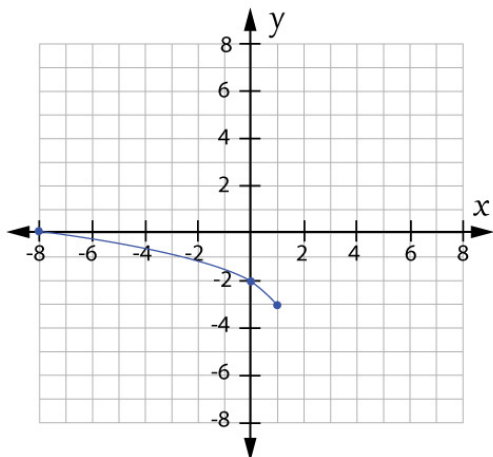
domain:  $\left[ \begin{array}{l} \text{Solution: } x \geq -2 \\ \text{Interval Notation: } [-2, \infty) \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \leq 0 \\ \text{Interval Notation: } [-\infty, 0] \end{array} \right]$

④  $y = \frac{1}{2}\sqrt{x-1} + 1$



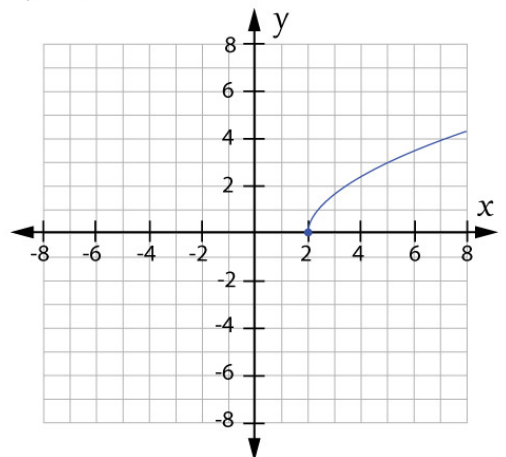
domain:  $\left[ \begin{array}{l} \text{Solution: } x \geq 1 \\ \text{Interval Notation: } [1, \infty) \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \leq 4 \\ \text{Interval Notation: } [-\infty, 4] \end{array} \right]$

⑤  $y = \sqrt{-x+1} - 3$



domain:  $\left[ \begin{array}{l} \text{Solution: } x \leq 1 \\ \text{Interval Notation: } (-\infty, 1] \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \geq -3 \\ \text{Interval Notation: } [-3, \infty) \end{array} \right]$

⑥  $y = \sqrt{3x-6}$



domain:  $\left[ \begin{array}{l} \text{Solution: } x \geq 2 \\ \text{Interval Notation: } [2, \infty) \end{array} \right]$  range:  $\left[ \begin{array}{l} \text{Solution: } f(x) \geq 0 \\ \text{Interval Notation: } [0, \infty) \end{array} \right]$