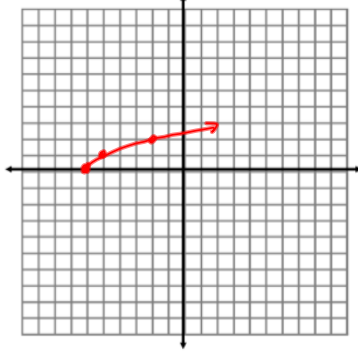


8.5 Practice Problems

Directions: Graph the function and then state the domain and range.

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



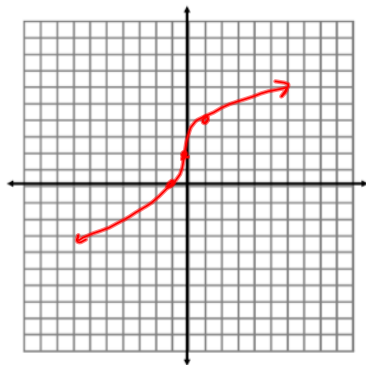
$D = x \geq -6$
 $R = y \geq 0$

2) $g(x) = \sqrt[3]{x} - 1$



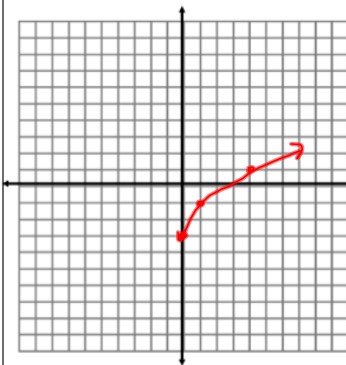
$D = \text{All Real \#}'s$
 $R = \text{All Real \#}'s$

3) $h(x) = 2\sqrt[3]{x} + 2$



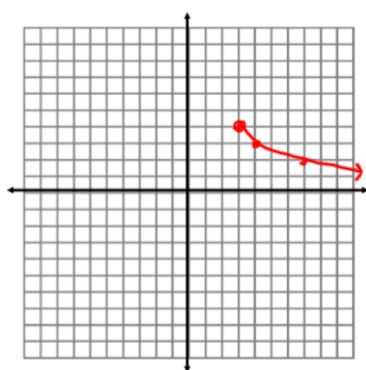
Domain +
 Range
 $\text{All Real \#}'s$

4) $g(x) = 2\sqrt{x} - 3$



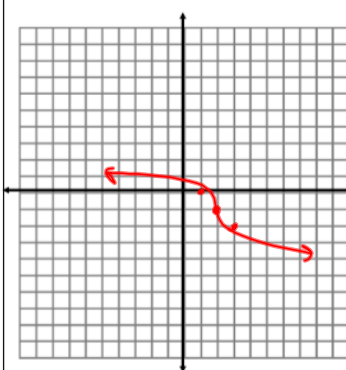
$D = x \geq 0$
 $R = y \geq -3$

5) $f(x) = -\sqrt{x-3} + 4$



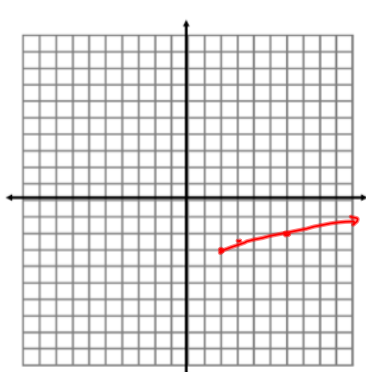
$D = x \geq 3$
 $R = y \leq 4$

6) $g(x) = -\sqrt[3]{x-2} - 1$



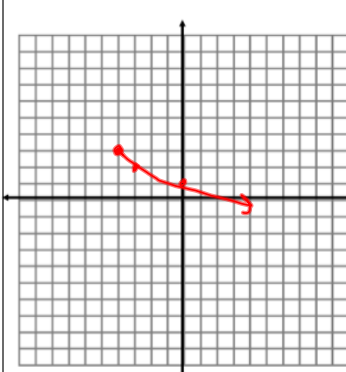
$D = \mathbb{R}$
 $\text{All Real \#}'s$

7) $h(x) = \frac{1}{2}\sqrt{x-2} - 3$



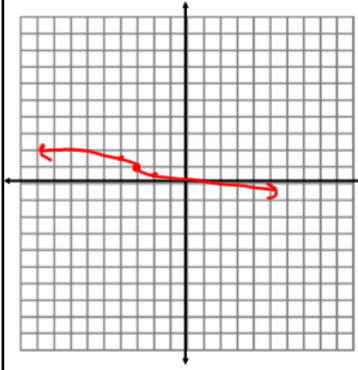
$D = x \geq 2$
 $R = y \geq -3$

8) $f(x) = -(x+4)^{1/2} + 3$



$D = x \geq -4$
 $R = y \leq 3$

9) $(x) = -\frac{1}{2}\sqrt[3]{x+3} + 1$



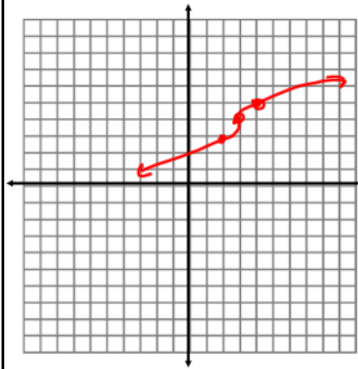
$\frac{D+R}{-}$
All
Real #'s

10) $(x) = \sqrt[3]{x-4} - 3$



$\frac{D+R}{-}$
All Real
#'s

11) $(x) = (x-3)^{1/3} + 4$



$\frac{D+R}{-}$
All
Real #'s

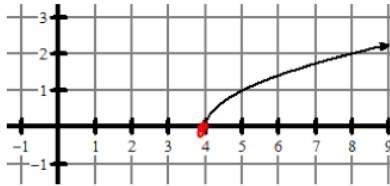
12) $f(x) = \sqrt{x-3} - 4$



$D = x \geq 3$
 $R = y \geq -4$

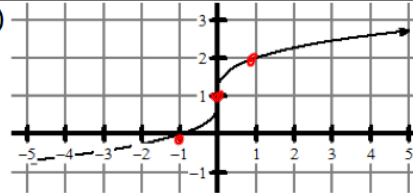
Directions: Write the equation of each function.

13)



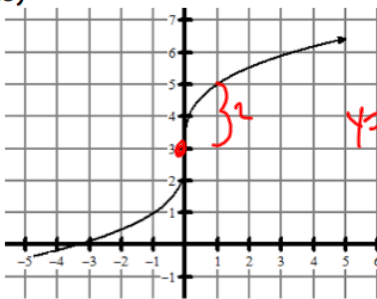
$y = \sqrt{x-4}$

14)



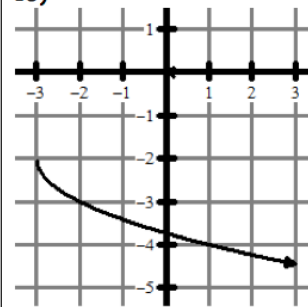
$y = \sqrt[3]{x} + 1$

15)



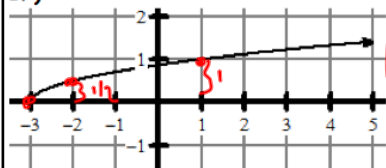
$y = 2\sqrt{x} + 3$

16)



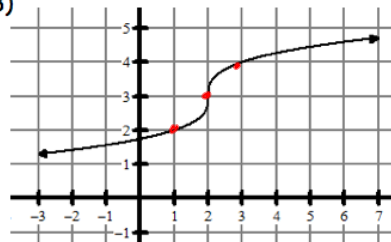
$y = -\sqrt{x+3} - 2$

17)



$y = \frac{1}{2}\sqrt{x+3}$

18)



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