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Domain  
 $|x| - b \leq x \leq b$  (closed)



Min:  $-b$   
Max:  $b$

Range  $|y| - b \leq y \leq b$

Min:  $-b$   
Max:  $b$

$$\dots \oplus \text{Domain } (x \mid -6 \leq x \leq -3, x \in \mathbb{I})$$

$$\text{Min} = -6,$$

$$\text{Max} = -3$$

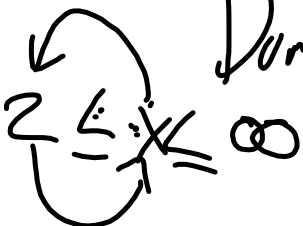
$$(x \mid -6, -5, -4, -3, x \in \mathbb{I})$$

Range

$$\text{Domain} = (x | -\infty < x < \infty)$$

$$\text{Max} = +\infty$$

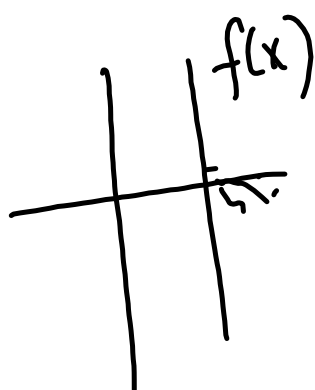
$$\text{Min} = -\infty$$

$$\text{Domain} = (x | 2 \leq x < \infty)$$


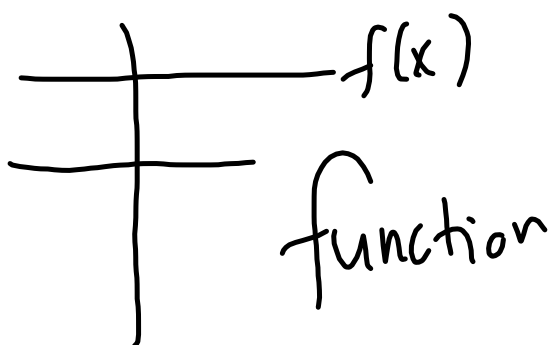
$$2 \leq x < \infty$$

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$$\begin{array}{l} \begin{array}{cc} x & y \\ (0,0) & (1,1) \\ (2,2) & \checkmark \end{array} \\ \hline \begin{array}{cc} (X, Y) & \\ (1,3) & (1,-4) \end{array} \\ \hline (1,1) \end{array}$$



Non-function



$$\begin{array}{l} f(x) = 13 \quad + (40) \\ \downarrow \\ 13 = \frac{1}{2}x + 3 \quad \left| \quad f(40) = \frac{1}{2}(40) + 3 \end{array}$$

$$h(x) = 3(x-3)^2 + 4$$

$$151 = 3(x-3)^2 + 4 - 4$$

$$\frac{147}{3} = \frac{3(x-3)^2}{3}$$

$$\sqrt{49} = \sqrt{(x-3)^2}$$

$$7 = x - 3 + 5$$

$$10 = x$$

$$x = 10$$

$$h(x) = 151$$

$$+ \quad \sqrt{x}$$

$$3(0)^2$$

$$3(0)$$

$$\begin{array}{l}
 h(x) = 3x^2 - 2 \\
 h(2) = 3(2)^2 - 2 \\
 h(2) = 3(4) - 2 \\
 h(2) = 12 - 2 \\
 h(2) = \underline{10} \\
 \\
 f(h(x)) = f(10) \\
 f(10) = \frac{1}{2}x + 3 \\
 f(10) = \frac{1}{2}(10) + 3 \\
 f(10) = 5 + 3 \\
 f(10) = 8 \\
 \frac{1}{2} \cdot \frac{10}{1} \cdot \frac{10}{2} \\
 = 5
 \end{array}$$



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