

2.1/2.2K Graphing Functions

A. Method

Evaluate x-values in $f(x)$ output formula to get (x,y) pairs and plot.

B. Comments

1. Everything is a curve, except lines and abs. value of linear.
2. Make sure to only plug in numbers in the function's domain.
Thus find the domain first.

C. Example

Graph f , where $f(x) = \sqrt{x-2}$

Solution

$$\begin{aligned}\text{dom } f: \text{ set inside } &\geq 0 \\ x-2 &\geq 0 \\ x &\geq 2\end{aligned}$$

Thus start table at $x=2$!

x	y
2	$\sqrt{2-2} = \sqrt{0} = 0$
3	$\sqrt{3-2} = \sqrt{1} = 1$
4	$\sqrt{4-2} = \sqrt{2} \approx 1.414$
6	$\sqrt{6-2} = \sqrt{4} = 2$
9	$\sqrt{9-2} = \sqrt{7} \approx 2.646$
10	$\sqrt{10-2} = \sqrt{8} \approx 2.828$
11	$\sqrt{11-2} = \sqrt{9} = 3$

