



## Understanding Functions and Their Graphs

### Today's Standard

HSF.IF.A1 - Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If  $f$  is a function and  $x$  is an element of its domain, then  $f(x)$  denotes the output of  $f$  corresponding to the input  $x$ . The graph of  $f$  is the graph of the equation  $y = f(x)$ .

Cues	Notes
What is a function?	A function assigns exactly one output to each input.
What is the domain?	The domain is the set of all possible inputs.
What is the range?	The range is the set of all possible outputs.
How is $f(x)$ used?	$f(x)$ represents the output of function $f$ for input $x$ .
What is the graph of a function?	The graph of a function is the visual representation of the equation $y = f(x)$ .

### Summary

Functions uniquely assign outputs to inputs, with the domain being the set of inputs and the range being the set of outputs. The graph of a function visually represents this relationship.