



Functions

About These Problems

The easiest way to think about a function is a black box that takes a number as an input and produces a number as an output. More often than not these problems will either be linear functions and you will be asked to plug in a value for x . Other times they will be some function that they have created and you have to fill in the blanks.

Question. Function $F(x)$ has the following table.

x	y
1	2
2	5
3	10
4	x
5	26

1. 17
2. 19
3. 27
4. 30
5. 25

Answer. 1: Doing a quick plot of the function you can tell it is not linear and seems to be increasing at a faster rate. Looking at the table you know the value must be between 10 and 26 so you narrow the answer down to 17 and 19.

Now looking closely at the values they all seem to be a square with 1 added to it.

$$F(1) = 1^2 + 1 = 2$$

$$F(3) = 3^2 + 1 = 10$$

$$F(4) = 4^2 + 1 = 17$$

The answer is 17. The key to solving these problems is intuition. Don't feel discouraged if they do not come easily at first.