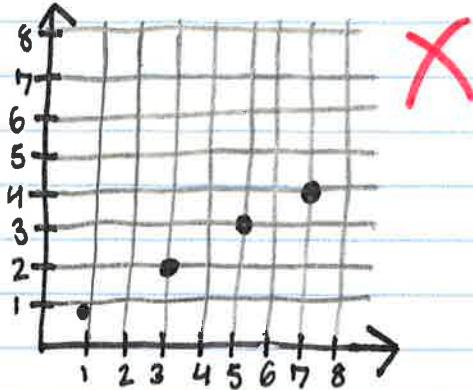


Sophia Nguyen  
Math CDC - Mrs. Joshi 1/28/2020

Problem: Describe and correct the error in graphing the line from the input-output table.

Input, $x$	1	2	3	4
Output, $y$	1	3	5	7

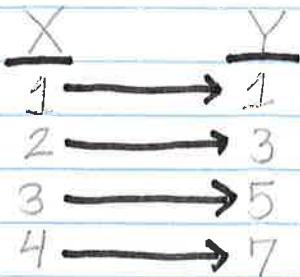


Claim: When graphing, input-output tables are helpful, but you must know how to graph them correctly.

Data: First, let's learn how to graph correctly with input-output tables.

Input	1	2	3	4
Output	1	2	5	7

← The input is always  $x$   
← The output is always  $y$



To find the ordered pairs, match the  $x$  with the  $y$  it was originally with.

Now, we start graphing.

This is how you graph:

Ordered Pairs

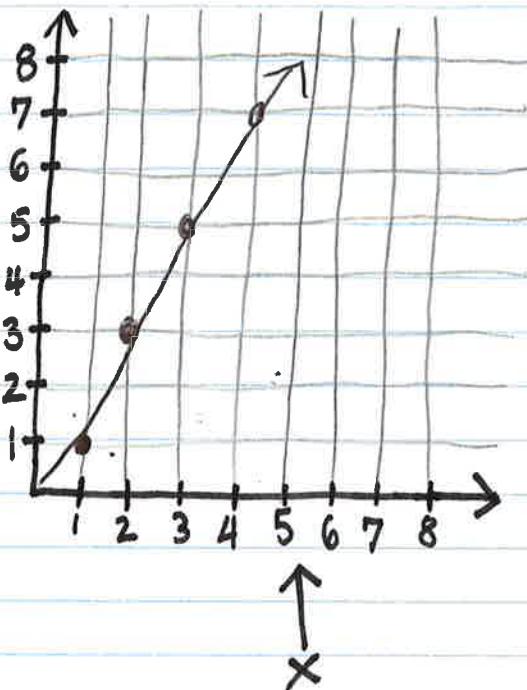
(1, 1)

(2, 3)

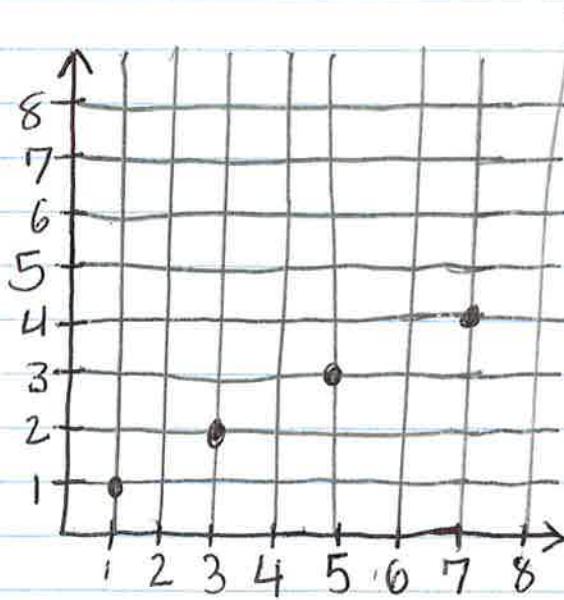
(3, 5)

(4, 7)

y ↗



Wrong Way:



Commentary: As shown here in the data, we have used input-output tables to graph. Like the data has shown, the ordered pairs came from the table, with

the input being  $x$  and the output being  $y$ . When graphing on a coordinate plane, you always start with the  $x$  axis. For example, with the ordered pair  $(2,3)$ , you must first start on 2 on the  $x$  axis, also known as the horizontal line. Then, you go up depending on your  $y$  coordinate. On the 2, you go up by 3. You are now on  $(2,3)$ . The mistake that happened was that the person got the  $x$  and  $y$  coordinate mixed up. So, instead of graphing  $(1,1)$ ,  $(2,3)$ ,  $(3,5)$ , and  $(4,7)$ , he graphed  $(1,1)$ ,  $(3,2)$ ,  $(5,3)$ , and  $(7,4)$ . Now, you know how to graph with input-output tables and you know what the mistake is.