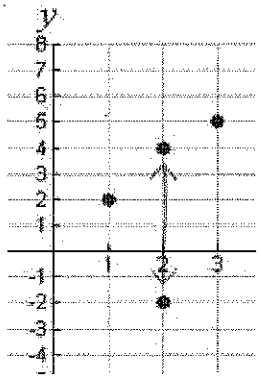
8.F.1 Understand that a function is a rule that assigns to each input exactly one output.

Which of the relations below is not a function?

a) (1,3) (2,4) (3, -3) function
b) (1,3) (2,3) (2,4) not a function
c) (0,1/2) (1,1/4) (2,1/8) function
d) (3,-3) (4,-4) (5,-5) function

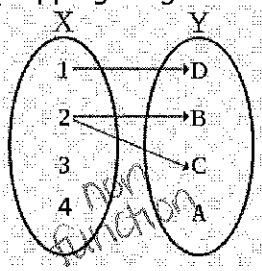
remember, x can't repeat in a function.



Which point needs to be removed from the graph to make it a function?

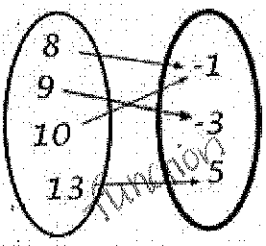
a) (1,2)
b) (2,2)
c) (2,4)
d) (3,5)

Mapping Diagram A



not a function

Mapping Diagram B



function

Which statement is true?

a) Both represent a function
b) Neither represent a function
c) Only A represents a function
d) Only B represents a function

Which of the following is NOT a function?

N a) Domain is the set of soccer team player's names, range is the positions they have played one person could have played several positions
F b) Domain is the names of the football players, range is their ages
F c) Domain is the basketball team's names, range is their genetic code
F d) Domain is the volleyball team's names, Range is their school ID number

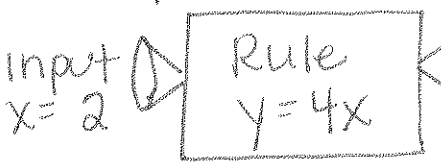
A student is working with the two functions shown:

- $y = 3x - 5$
- The second function is the set of all values when the input is multiplied by 5. ($y = 5x$)

* x = input ; y = output

Part A: The student does not understand what a function is in terms of inputs and outputs. Write an explanation for the student and draw a function machine diagram of your own design.

A function is a relation that pairs each input (x) with only one output (y). The function rule tells you how x & y are related.



$y = 4(2)$
$y = 8$

Part B: Which function has the greater *y*-intercept? Show your work and explain your answer.

Function 1:
$y = 3x - 5$
$b = -5$

Function 2:
$y = 5x$
$b = 0$

$0 > -5$ so function 2 has a greater y-intercept.