

Class Notes

If there was no class lecture this week, write a paragraph about what you learned and/or questions about what you didn't understand.

Topic: Relations & Functions

Questions/Main Ideas:

Name: _____

Class: _____

Period: Algebra Period 0

Date: 1/27 Pg. 241

Notes:

Relation

A set of ordered pairs.

$(4, 7)$ $(6, 2)$ (age, height)
 (x, y) (x, y)

Domain

The "x" or first coordinate point

Range

The "y" or second coordinate pt

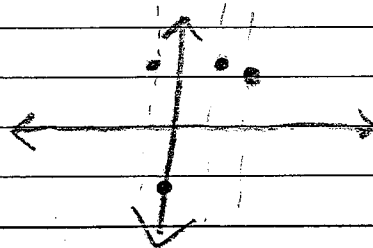
$(4, 7)$ 4 = Domain
7 = Range

Function

is a relation (x, y) , but for every "x" value there can only be one "y" value.

How can you tell if it is a function?

① Look at ordered pairs
 $(3, 3)$ $(-1, 4)$ $(0, -4)$ $(2, 4)$



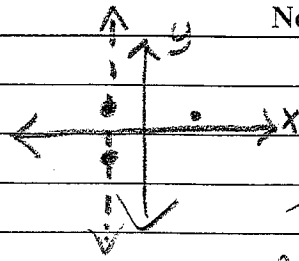
No 2 pts have the same "y" value

Yes Function

Summary:

Questions/Main Ideas:

Notes:



$(-1, 2)$ $(-1, -2)$ $(3, 1)$

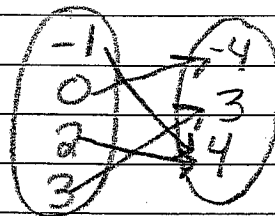
Not function

there are 2 "y" values for an "x" value.

Table

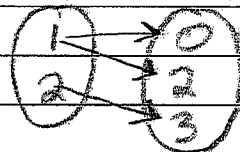
| x | y |
|----|----|
| 3 | 3 |
| -1 | 4 |
| 0 | -4 |
| 2 | 4 |

Mapping



Is a function

Is a function



Not a function

Equation
Notation

$$y = 3x + 4$$

what if $x = 2$

Then y is 10.

y is dependent on what x is.

Function
Notation

$$f(x) = 3x + 4 \quad (f(x) \rightarrow f \text{ of } x)$$

f is a function of x

$f(x)$ plug into a machine to see the output-answer. $f(x)$ is dependent on the input or guess.

Summary:

$$f(n) = 4n - 6 \rightarrow n = 2$$

$$f(2) = 4(2) - 6$$

$$f(2) = 8 - 6$$

$$f(2) = 2$$

$$g(w) = w^2 + 3w - 2 \rightarrow w = -3$$

$$g(-3) = (-3)^2 + 3(-3) - 2$$

$$g(-3) = 9 + -9 - 2$$

$$g(-3) = -2$$