

January 21, 2015

* Quiz #2 → 1.1 & 1.3

* Read 9.1 (Co.S) & 3.2 (Co.R)

Jan 21-10:51 AM

2.1 Functions

* "Relation" Process of relating something to something else

* use of an ordered pair (a, b)

* Note: an ordered pair is not Interval notation!

$(2, b), (3, c), (4, d)$

① $\{2, 3, 4\}$

- 1st entry of the pairs
- Abscissa of the Relation
- Domain → X_s

② $\{b, c, d\}$

- 2nd entry
- Ordinate of the Relation
- Range → Y_s

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mapping

abscissa to ordinate

2 → b

3 → c

4 → d

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ordered pair

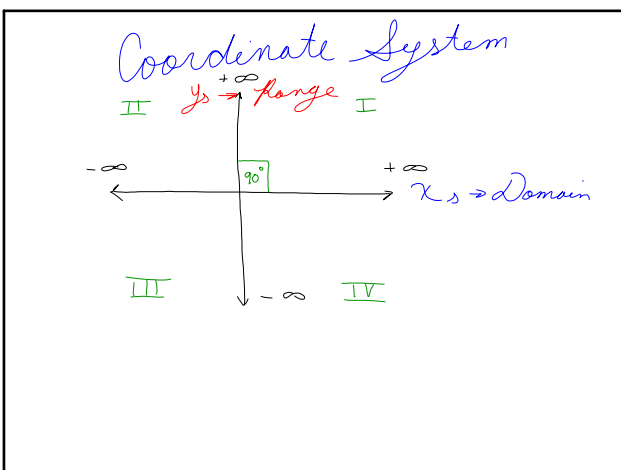
$(a, b) \rightarrow (\text{abscissa}, \text{ordinate})$

$(\text{Domain}, \text{Range})$

(X_s, Y_s)

of a Coordinate System

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$(0, 2), (3, 4), (0, 5)$

Domain: $\{0, 3\}$
 X_s

Range: $\{2, 4, 5\}$
 Y_s

Is this Relation a function?

map

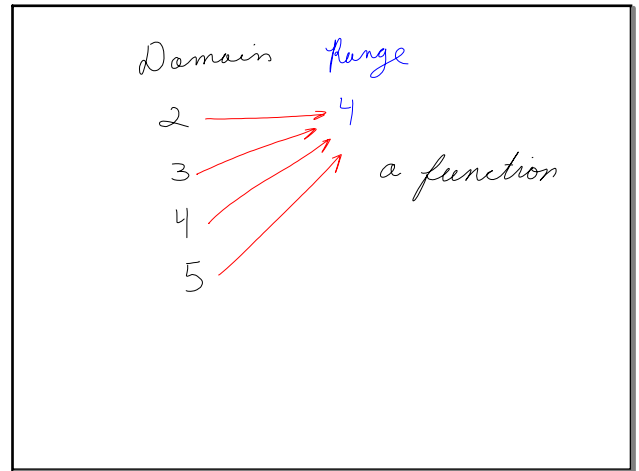
Is an Issue!
* In Not a function

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What is a Function?

- a Relation that maps an element in the Domain to a specific element in the Range.

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Function Machine

<p><u>In Put</u></p> <p>abscissa</p> <p>Domain</p> <p>set of X_s</p> <p>Horizontal Coordinates</p>	<p>function</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">a Rule</div>	<p><u>output</u></p> <p>ordinate</p> <p>Range</p> <p>set of Y_s</p> <p>Vertical Coordinates</p>
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notation

mapping

$f : x \rightarrow y$

the function "f" is mapping x to y . (sending to)

$f(x) = y$

f of x is y . (equal) y .

Does not mean multiplication here.

$f(x) = 2x + 3$ Rule

↑ Input ↑ output

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