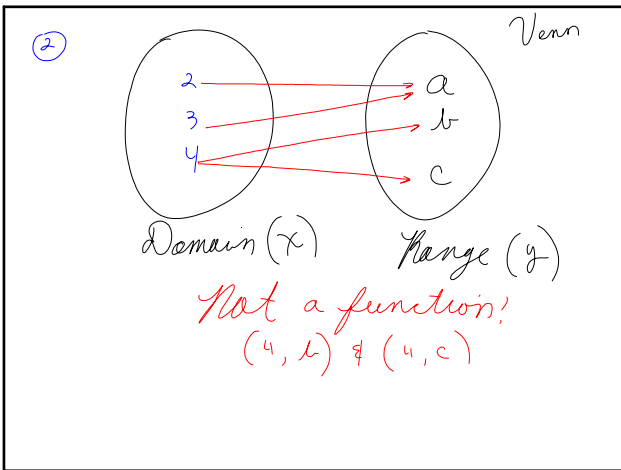


October 6, 2015
 * Re-Do Exam #1
 on Monday

Oct 6-9:57 AM

9.2 Functions
 Examples
 ① $\{ (2, 5), (-5, 8), (4, 12) \}$
 * Determine if any elements of the Domain are repeated.
 • No repeats \rightarrow then it is a function
 * If there are repeats, then look to see if the element is mapped to some element in the range.
 * if not mapped to some element, it's not a function!

Oct 6-10:14 AM



Oct 6-10:22 AM

③ $f(x) = 2x + 5$
 "f of x"
 Is this a function? yes!
 $f(x) = y$
 $y = 2x + 5$
 $-2x + y = 5$

Oct 6-10:26 AM

$$x^2 + y^2 = 4$$

$$\sqrt{y^2} = \pm \sqrt{-x^2 + 4}$$

$$y = (\pm) \sqrt{-x^2 + 4}$$

two results \rightarrow not a function

Oct 6-10:32 AM

$$|y| = x + 2 \quad x = 2$$

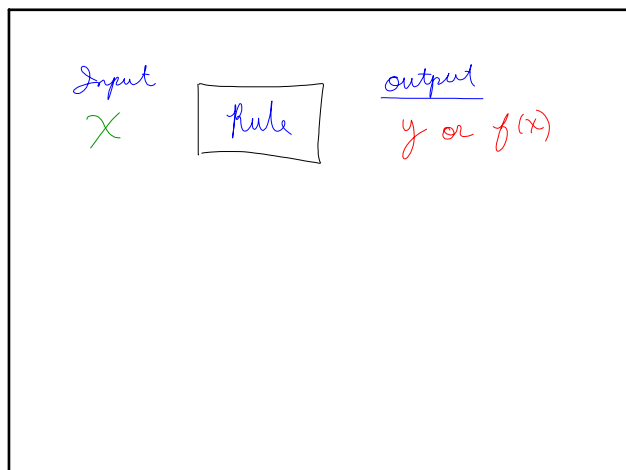
$$|y| = 2 + 2$$

$$|y| = 4 \text{ true if } y = 4$$

$$|y| = 4 \text{ true if } y = -4$$

Not a function

Oct 6-10:37 AM



Oct 6-10:41 AM

$$f(x) = x^2 - 3x + 4$$

$$f(-3) = (-3)^2 - 3(-3) + 4$$

$$= 9 + 9 + 4$$

$$= 18 + 4$$

$$= 22$$

$$f(a+b) = (a+b)^2 - 3(a+b) + 4$$

$$= a^2 + 2ab + b^2 - 3a - 3b + 4$$

Oct 6-10:42 AM

$$f(x) = x \rightarrow y = x$$

$$f(22) = 22 \quad y = 22$$

Oct 6-10:46 AM