

function Tabular View.

function #1

x	y
1	8
2	8
3	8
3	8
4	8

function #2

x	y
1	8
2	9
3	10
3	11
4	12

$f$  is function if (and only if) knowing the value of  $x$  means you know the value of  $y$

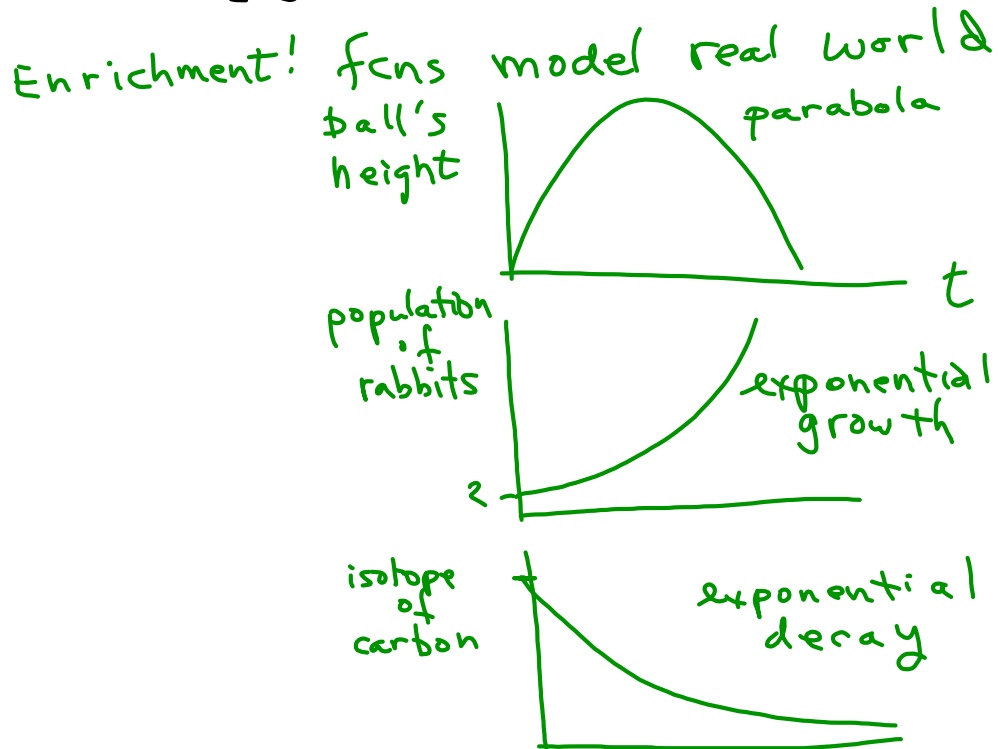
Topic

## Domain and Range

definition: domain (D) is the set of all input values that can be used as input to a fcn.

definition: range (R) is the set of all output values that can be produced by a fcn.

function #1:  $\{1, 2, 3, 4\} \rightarrow \{8\}$   
 $\{ \}$  notation from "set theory"



## Sequences and Series

sequence  $\{\text{Countable Numbers}\} \rightarrow \{\text{some numbers}\}$   
 $1, 2, 3, 4, \dots$  ← ellipsis  
 "and so on" forever

Example:  $2, 5, 8, 11, 14, \dots$

$a_1, a_2, a_3, a_4, a_5, \dots, a_n, \dots$   
 terms