To rent a car for less than one week from Ace Car Rentals, the cost is $65.00 per day for the first three days, then $60.00 a day for each additional day.

Number of Days Car Is Rented	Total Cost ($)
1	65
2	130
3	195
4	255
5	315
6	375

a) Represent this relation as a set of ordered pairs.

b) State the domain & Range.

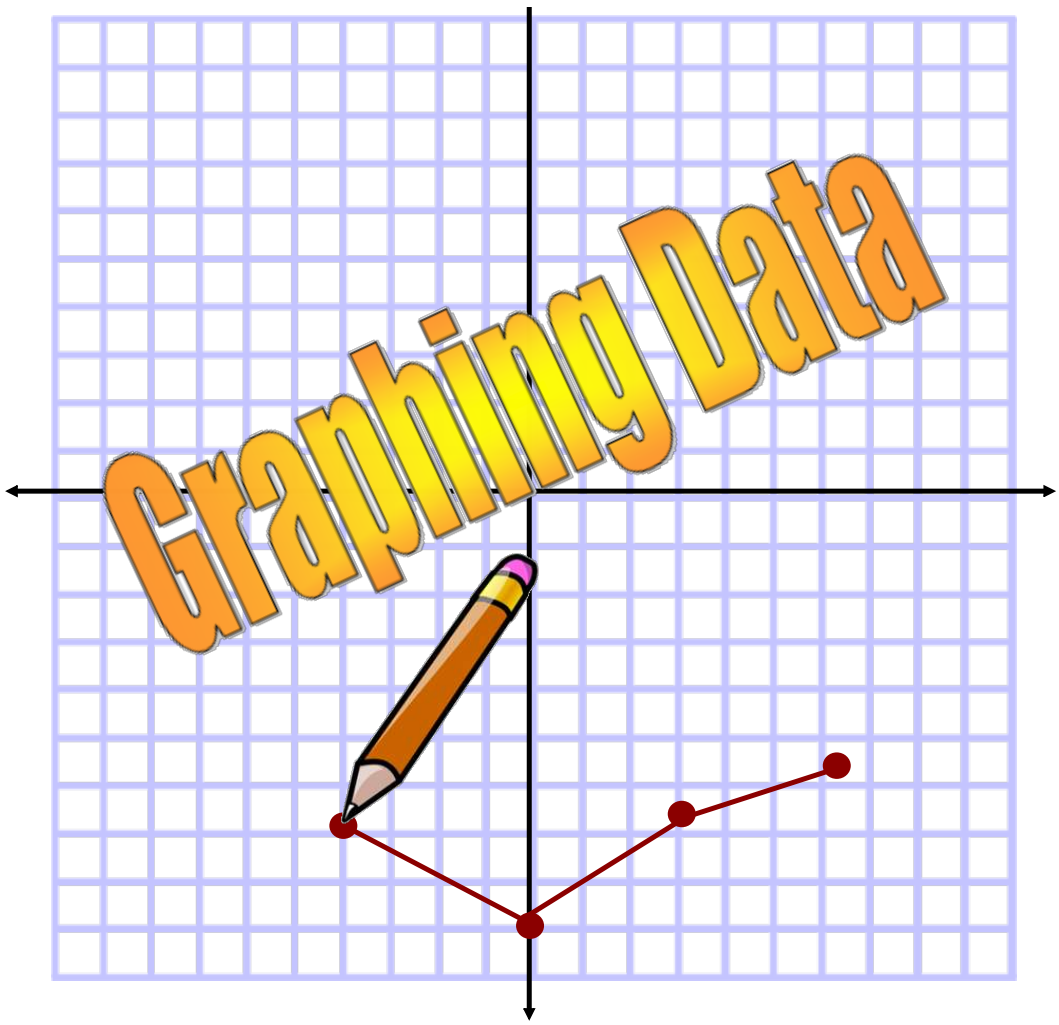
c) Is this relation a function?

Solution:

a) First set represents the Number of days the car is rented.
Second set represents the Total cost of renting the car.
{ (1, 65) , (2, 130) , (3, 195) , (4, 255) , (5 , 315) , (6, 375) }

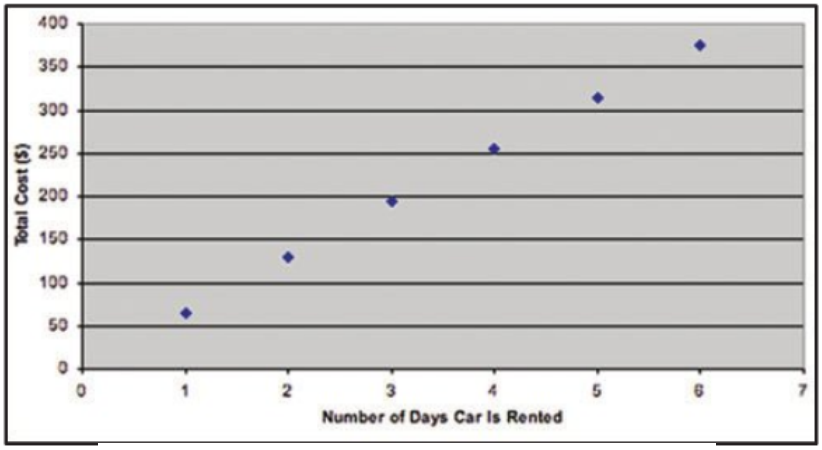
b) Domain {1, 2, 3, 4, 5, 6}
Range {65, 130, 195, 255, 315, 375}

c) Function


Graphing Data

Compare the Graph with the Ordered Pairs!!

First set represents the number of days the car is rented.
Second set represents the total cost of renting the car.
{ (1, 65) , (2, 130) , (3, 195) , (4, 255) , (5 , 315) , (6, 375) }

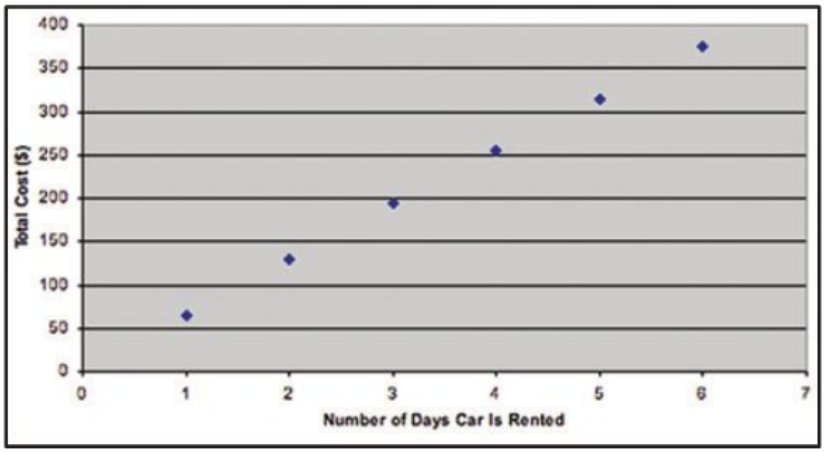


What do you notice?

They are the same as the points on the graph.

Take a look at Domain & Range!!

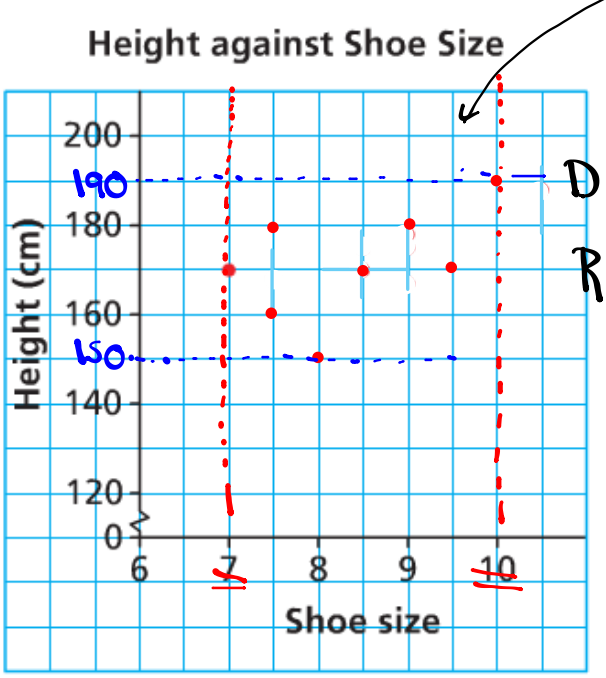
Domain {1, 2, 3, 4, 5, 6}
Range {65, 130, 195, 255, 315, 375}



What do you notice?

Domain : represents the values of x (limits on x)
Range: represents the values of y (limits on y)

Dots = Stipled
$x \in N$, $x \in I$



a) State the domain & range.

$D\{x \mid 7 \leq x \leq 10, x \in N\}$

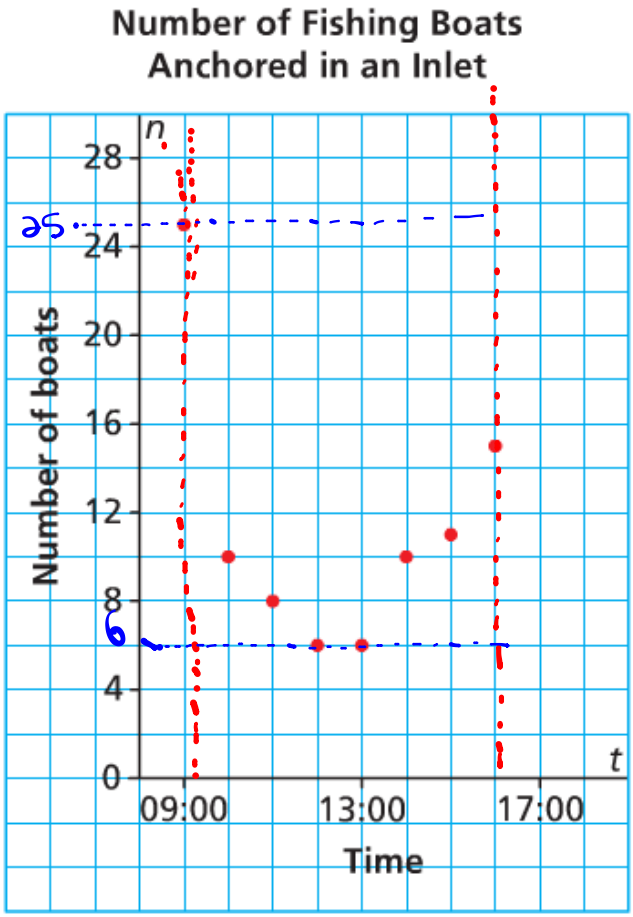
$R\{y \mid 150 \leq y \leq 190, y \in N\}$

b) Is this relation a function?

No

c) Why are the points not connected? Explain.

Shoe sizes are measured by ½'s



a) State the domain & range.

D: $\{x \mid 9 \leq x \leq 16, x \in N\}$

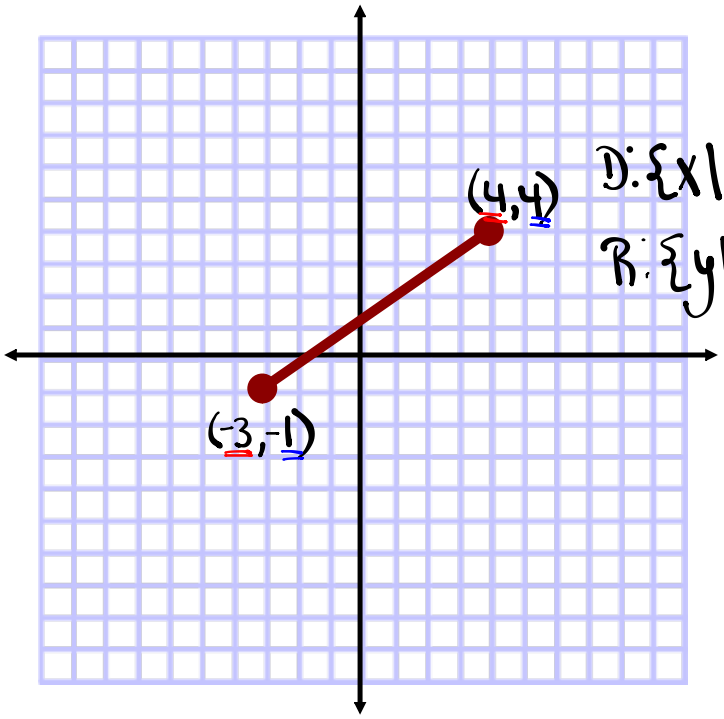
R: $\{y \mid 6 \leq y \leq 25, y \in N\}$

b) Is this relation a function

Yes

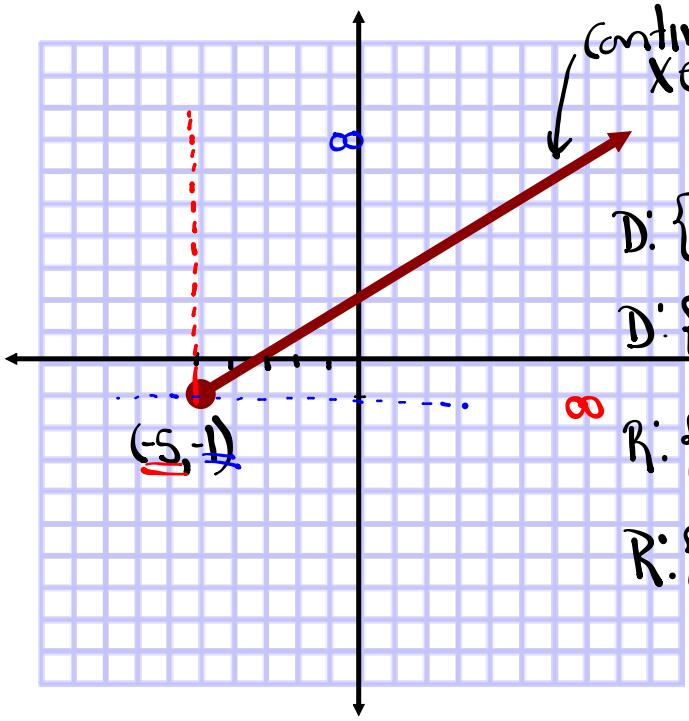
c) Why are the points not connected? Explain

Number of Boats has to be a Natural # (No Fractions or decimals)



$D: \{x \mid -3 \leq x \leq 4 \; x \in R\}$

$R: \{y \mid -1 \leq y \leq 4, y \in R\}$

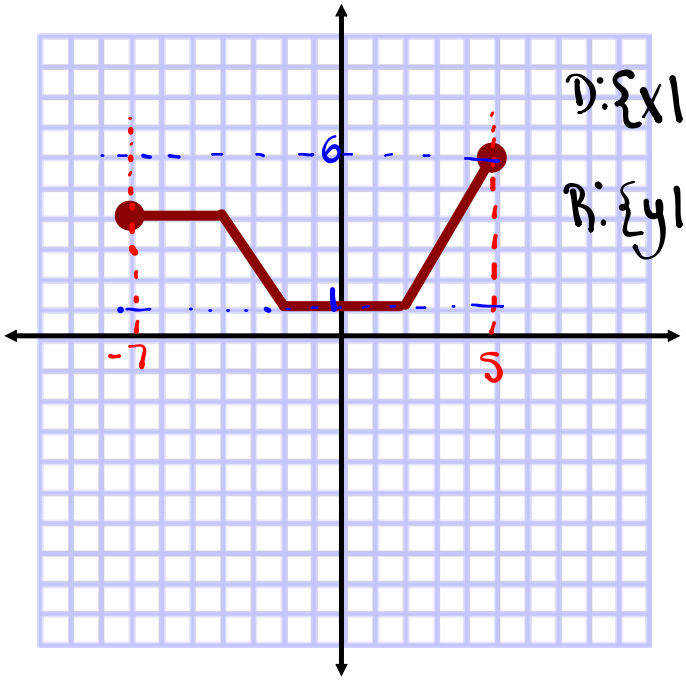


D: $\{x \mid -5 \leq x \leq \infty, x \in R\}$

D: $\{x \mid x \geq -5, x \in R\}$

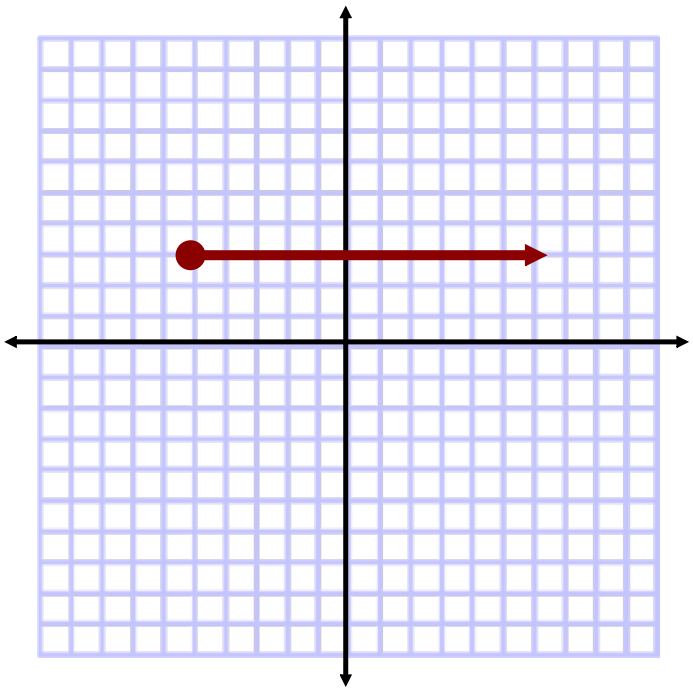
R: $\{y \mid -1 \leq y \leq \infty, x \in R\}$

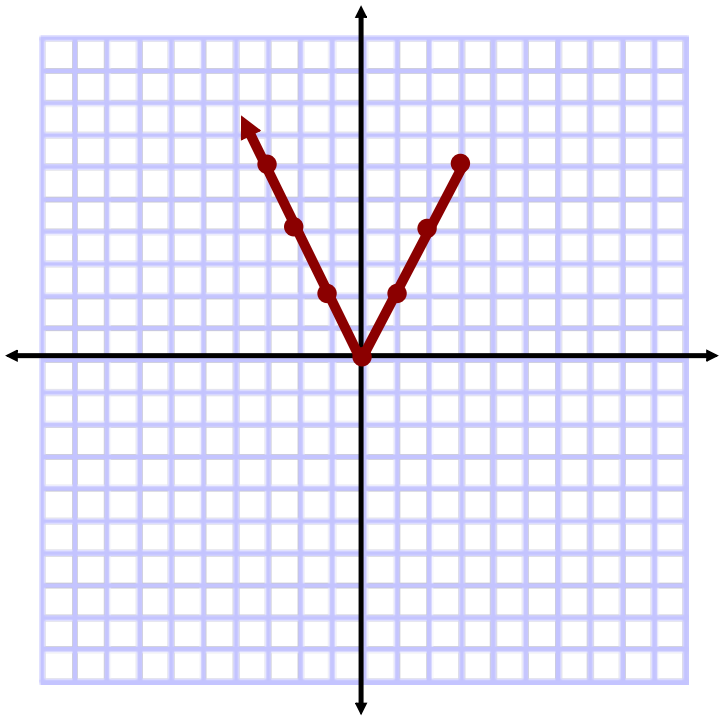
R: $\{y \mid y \geq -1, y \in R\}$

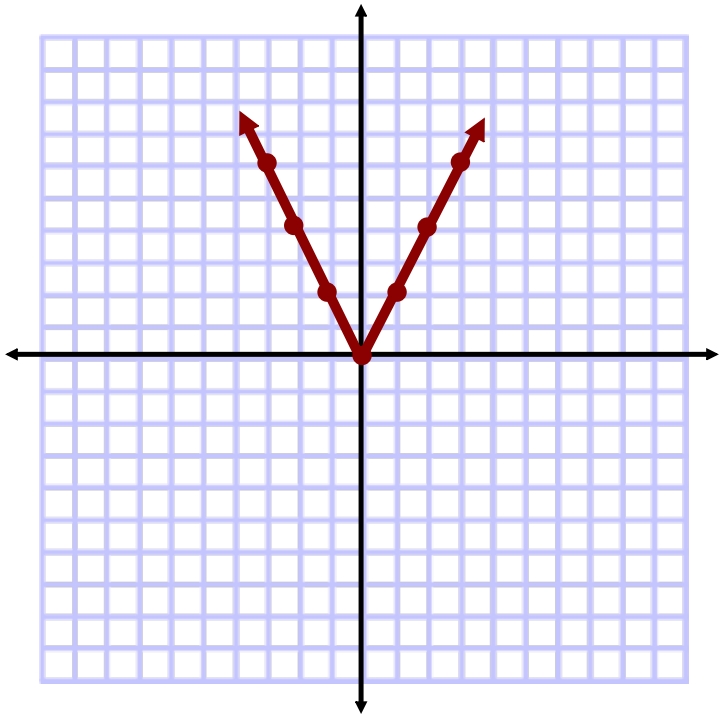


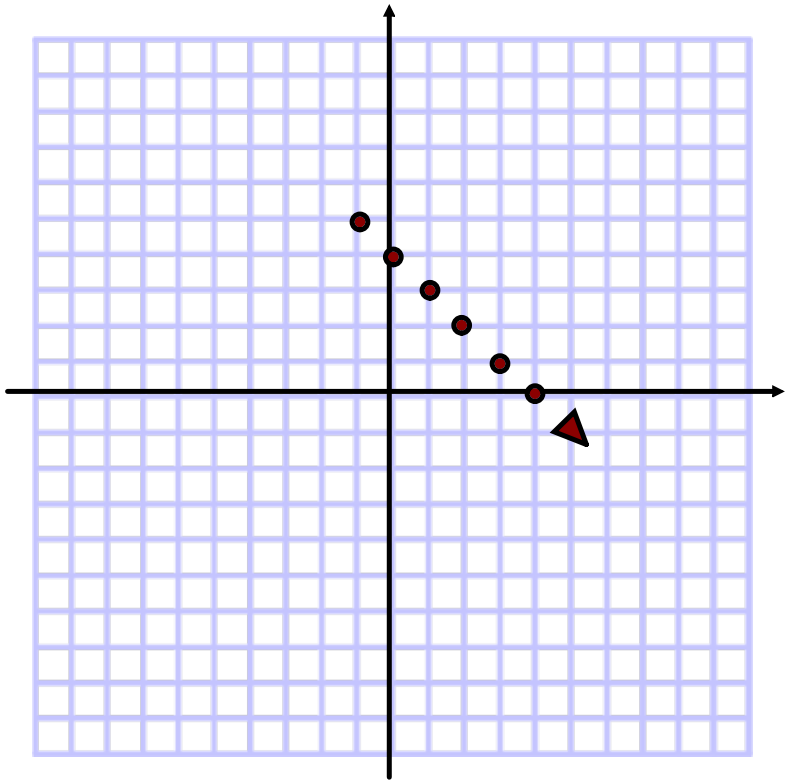
$D: \{x \mid -7 \leq x \leq 5, x \in \mathbb{R}\}$

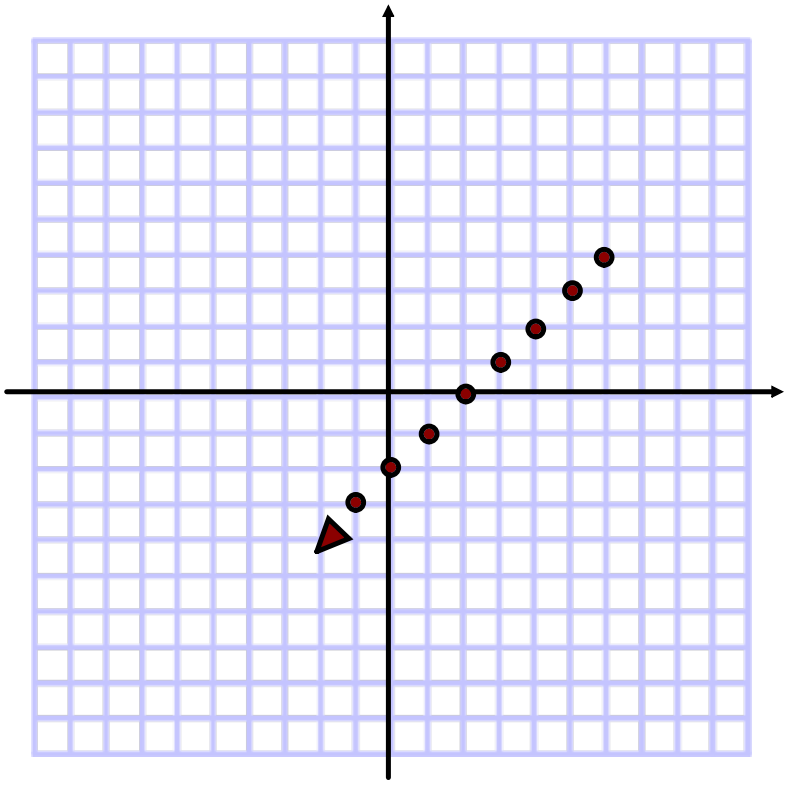
$R: \{y \mid 1 \leq y \leq 6, y \in \mathbb{R}\}$

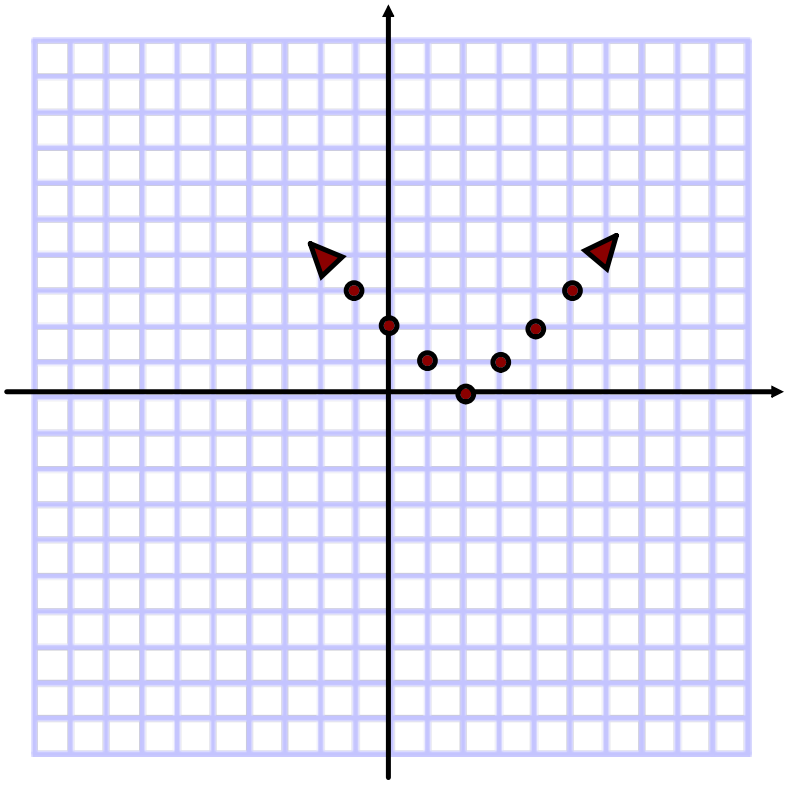


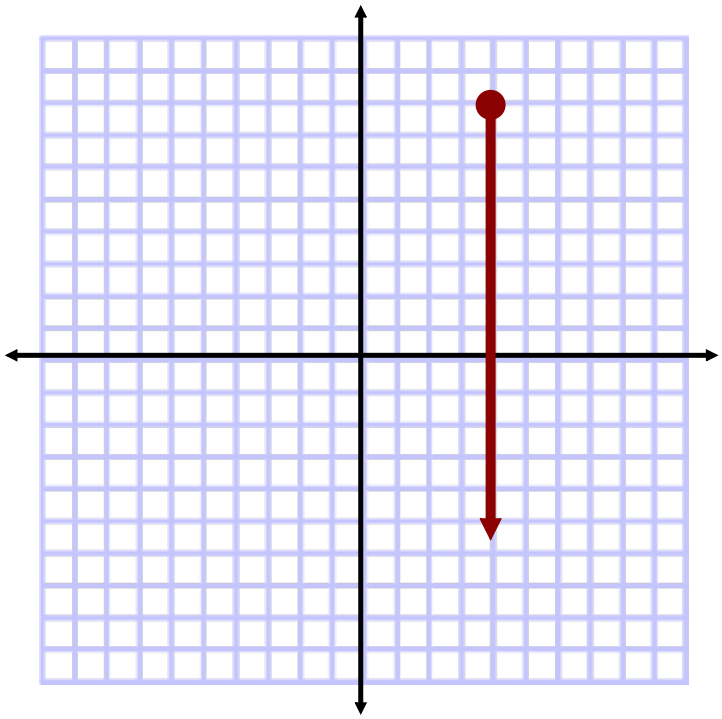


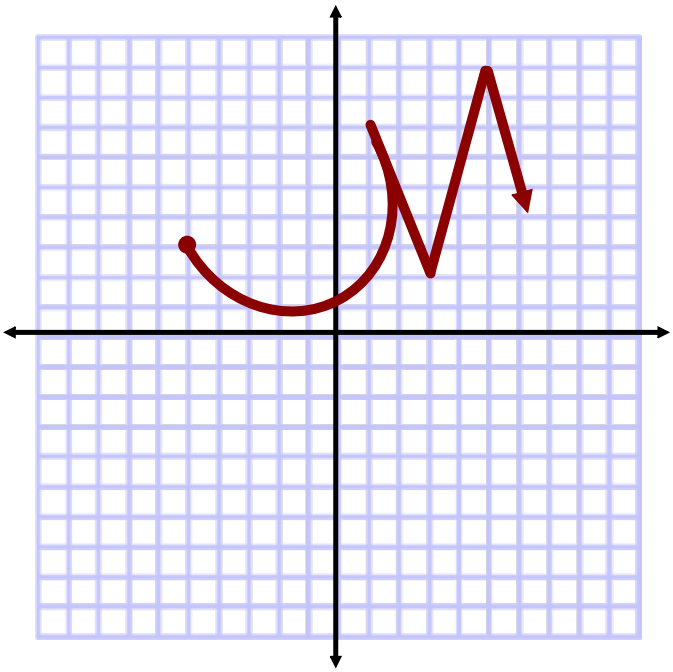












Assignment

Page 294 #4, 6, 7, 8, 9, 10, 11, 12, 14

Graph the Following Relation

Number of Cans of Juice Purchased, n	Cost, C ($)
1	2.39
2	4.00
3	6.39
4	8.00
5	10.39
6	12.00