5.4 Graphing Data

Lesson Focus

Graph data and investigate the domain and range when the data represents a function

Graphing

*What set would represent the **dependent variable?***
*What set would represent the **independent variable?***

When graphing
dependent variable on the y-axis
independent variableon the x-axis

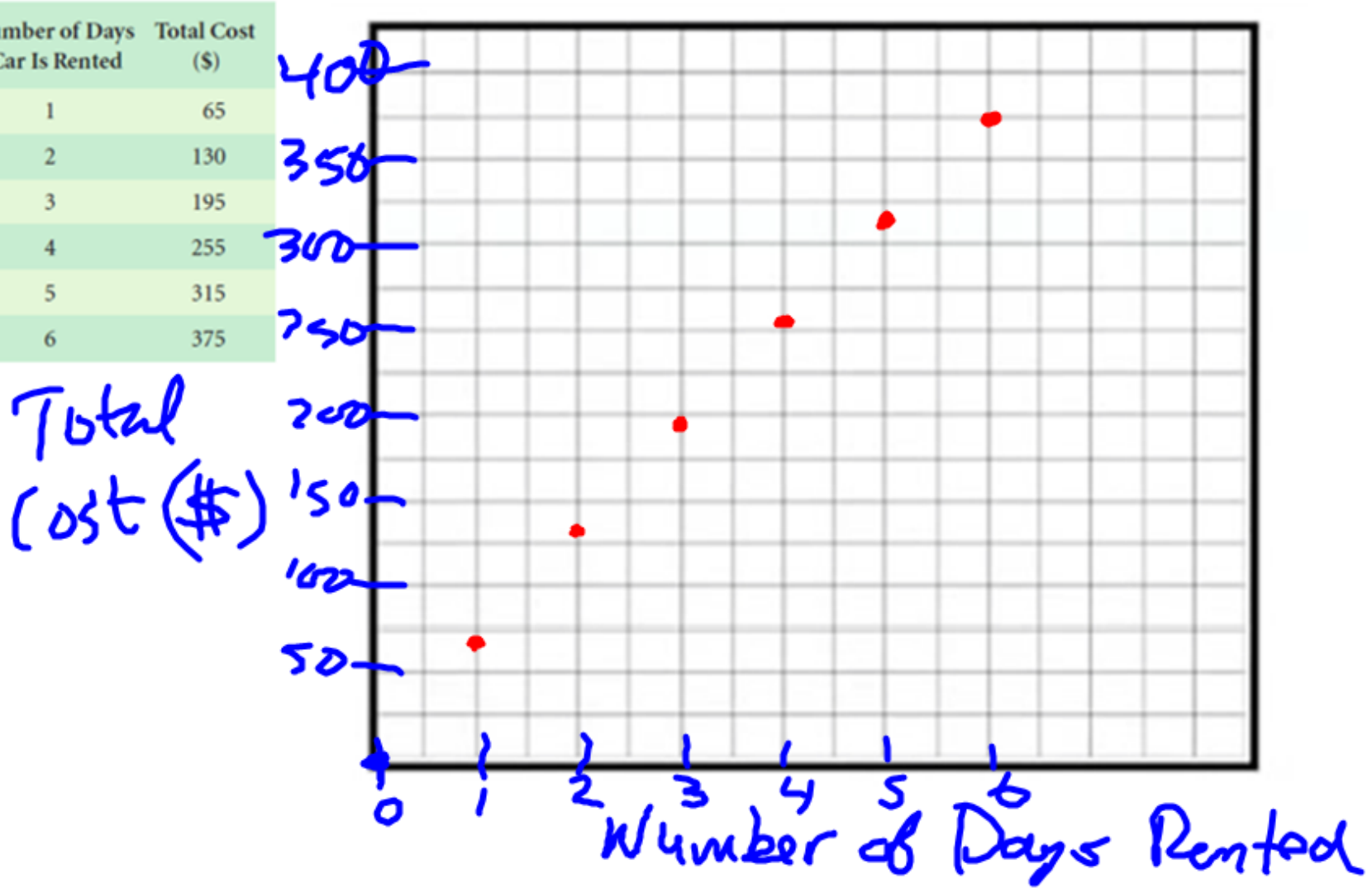
Number of Days Car Is Rented	Total Cost ($)
1	65
2	130
3	195
4	255
5	315
6	375

D: {1, 2, 3, 4, 5, 6}

R: {65, 130, 195, 255, 315, 375}

To rent a car for less than one week from Ace Car Rentals, the cost is $65 per day for the first three days, then $60 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



Homework

Graphing Lab
or Page 286 #'s 1,2

1. For each table of values below:

i) Graph the data. Will you join the points? Justify your answer.

ii) Does the graph represent a function? Explain.

a) At a constant pressure, the speed of sound in air is related to the air temperature.

Air Temperature (°C)	Speed of Sound (m/s)
0	331
5	334
10	337
15	340
20	343

b) The recommended daily dose of vitamin C is related to a female's age in years.

Age (years)	Dose of Vitamin C Tablet (mg)
3	15
6	25
9	45
12	45
15	65
18	65
21	75

2. Graph the data in these tables of values from Lesson 5.2, question 9.
Decide whether to join the points.
How can you tell from each graph that the relation is a function?

a)

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

b)

Altitude, A (m)	Temperature, T (°C)
610	15.0
1220	11.1
1830	7.1
2440	3.1
3050	−0.8
3660	−4.8