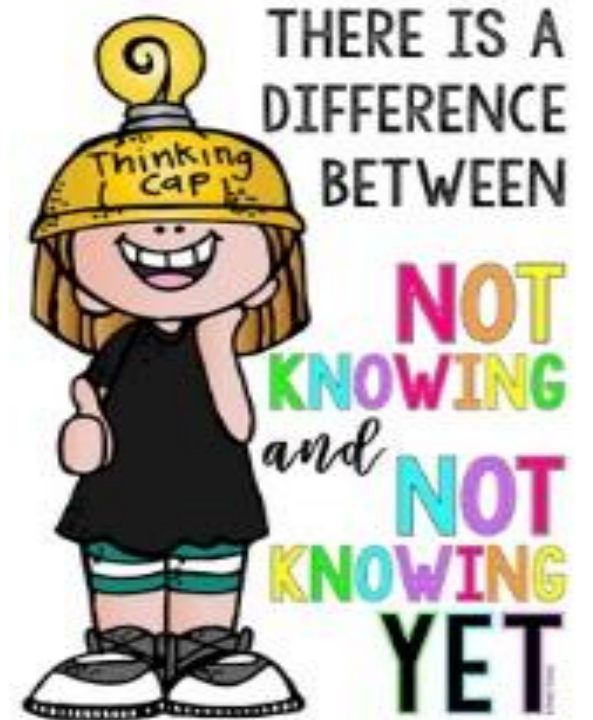


Part A – **Copy** the outcome in your scribbler.

**PR1** - Graph and analyze two-variable linear relations.

*Achievement Indicators:*

- Determine the missing value in an ordered pair for a given equation.
- Create a table of values by substituting values for a variable in the equation of a given linear relation.
- Construct a graph from the equation of a given linear relation (limited to discrete data).
- Describe the relationship between the variables of a given graph.
- Determine whether or not a graph would be shown with a solid line connecting the plotted points.



# Creating a table of values from a linear equation

1. **Read** page 352 in your textbook for a refresher on how to complete a table of values.
2. **Watch** the following video for an example of creating a table of values from a linear equation.

<https://www.youtube.com/watch?v=f0kmMUr3wes>



**Copy** and **complete** each table of values.

**See** a) for example. **Solve** by entering value of x to find y.

Example for a):  $y = x + 5$ ;  $y = 1 + 5$  so  $y = 6$ ;  $y = x + 5$ ;  $y = 2 + 5$  so  $y = 7$  etc

a)  $y = x + 5$

x	y
1	6
2	7
3	8
4	9
5	10

b)  $y = x - 1$

x	y
1	
2	
3	
4	
5	

c)  $y = -2x$

x	y
1	
2	
3	
4	
5	

d)  $y = 2x - 5$

x	y
-3	
-2	
-1	
0	
1	
2	
3	

e)  $y = -3x + 1$

x	y
-3	
-2	
-1	
0	
1	
2	
3	

f)  $y = -2x - 5$

x	y
-3	
-2	
-1	
0	
1	
2	
3	

# Creating a Table of Values - Example

To earn money, Craig washes cars at a dealership. He gets \$25 per day and \$4 for each car he washes.

- 1) Create a table of values.
- 2) Can you start the table with -2? With 0?

Cars washed	Salary per day
1	29
2	33
3	37
4	41
5	45
6	49



- Craig`s salary is dependant on the amount of cars he washes in a day.
- The expression  $4n + 25$ :
- What does  $n$  represent in this expression?
- What does 25 represent in this expression?
- What would  $4n + 25$  mean?



**\*answer: 'n' represents the amount of cars he washes and 25 is the base salary he gets every day.**

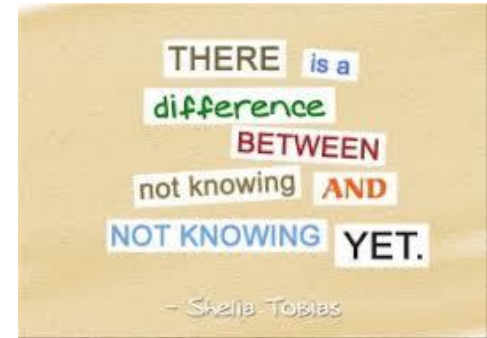
**$4n + 25$  means that Craig would get 25\$ per day but also gets 4\$ per car he washes during the day.**

**\*Read Examples 1 and 2 on pages 353-355. Take notes as needed.**

**Find the statement that describe each expression. (matching)**

Show answer to teacher.

- $24 + n$  a) my salary increased by seven
- $n + 7$  pencils. b) I have seven box of pencils. I took three
- $n \div 4$  c) share your grapes between four friends.
- $7n - 3$  d) cost of each person plus 125\$ for renting the boat.
- $10n + 125$  e) a number added to 24



Read the top of page 353 in your math textbook.

- Creating **ordered pairs** from a table of values(from Grade 7 math)
- $y = 20 - 3x$  to find  $y$ ...  $y = 20 - 3(1)$   $y = 20 - 3$  ;  $y = 17$  Solve for each row.

X	Y
1	17
2	14
3	11
4	8
5	5
6	2
7	-1

- **Ordered pairs**-the related pairs that are found in the table of values;  $x$  and  $y$
- The **ordered pairs** above are as follows...**(1,17)(2,14) (3, 11) (4, 8) (5, \_\_), (6,\_\_), ( \_\_, -1)**
- **Are you able to find the missing ordered pair from the table above?**

# Practice

## 1. Complete questions 4, 5, 6, 7, 9, 10 & 11 on pages 356 and 357.

### Check

4. Copy and complete each table of values.

a)  $y = x + 1$

x	y
1	
2	
3	
4	
5	

b)  $y = x + 3$

x	y
1	
2	
3	
4	
5	

c)  $y = 2x$

x	y
1	
2	
3	
4	
5	

5. Make a table of values for each relation.

a)  $y = 2x + 1$

b)  $y = 2x - 1$

c)  $y = -2x + 1$

6. The equation of a linear relation is:

$$y = 9x - 7$$

Some ordered pairs in the relation are:

$(0, -7), (1, 2), (2, \quad), (3, 20),$

$(4, \quad), (\quad, 38)$

Find the missing numbers in the ordered pairs.

7. Melanie earns \$7 per hour when she baby-sits. An equation for this relation is  $w = 7h$ , where  $h$  represents the number of hours and  $w$  represents Melanie's wage in dollars.

a) Use the equation to create a table of values.

b) In one week, Melanie earned \$105. How many hours did she baby-sit?

c) In one month, Melanie baby-sat for 24 h. How much did she earn from baby-sitting in that month?

9. Make a table of values for each relation.

a)  $y = -2x + 3$

b)  $y = -5x - 4$

c)  $y = 8x - 3$

10. The equation of a linear relation is:

$$y = -3x + 5$$

Some ordered pairs in the relation are:

$(-3, 14), (-1, 8), (1, \quad), (3, -4),$

$(5, \quad), (\quad, -16)$

Find the missing numbers in the ordered pairs.

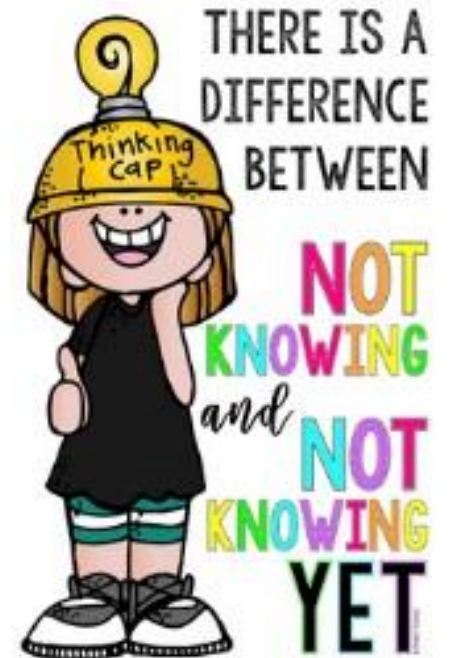
11. The equation of a linear relation is:

$$y = -2x + 7$$

Find the missing number in each ordered pair.

a)  $(-8, \quad)$       b)  $(12, \quad)$

c)  $(\quad, 31)$       d)  $(\quad, -23)$



## 2. Worksheet – 6.6 Creating a Table of Values (pages 152-154 from the Practice and Homework Book)



PR 1 - Journal Question # 1