

**Learning Outcomes Covered:**

**4B:** I can graph a linear relation by using a TOV.

**4C:** I can understand that in a linear relation, a constant change in "x" produces a constant change in "y".

**CONTENT Assessment Questions:**

1. A computer repair company charges \$80 for a service call, plus \$50 an hour for labour.

a) Create a table to show the relation between the time in hours for the service call and the total cost.

# of hours	Charge.
1	130
2	180
3	230
(n)	C

*Handwritten notes: +1 (next to hours) and +50 (next to charge) with arrows indicating the constant change between rows.*

b) Complete the following statement:

A constant change of 1 units in the # of hours ("x"-value) produces a constant change of 50 units in the charge ("y"-value).

c) Let  $n$  represent the time in hours for the service call and  $C$  represent the total cost in dollars. Write an equation that relates  $C$  and  $n$ .

$$C = 50n + \square$$

$$130 = 50(1) + \square$$

$$130 = 50 + \square$$

$$\square = 80 \quad \boxed{C = 50n + 80}$$

d) How much will a 7-h service call cost?

$$C = 50(7) + 80$$

$$= 350 + 80 = \boxed{\$430}$$

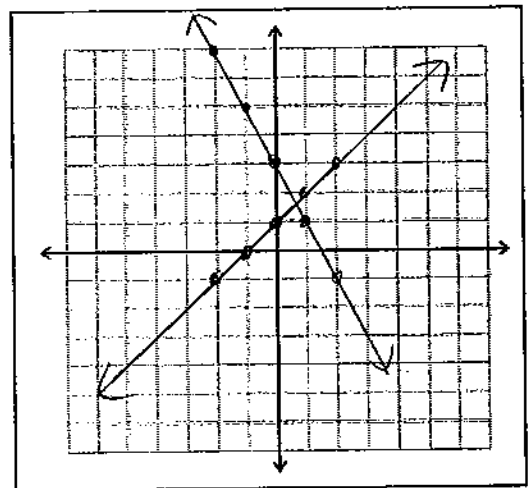
2. Create a table of values for each linear relation and then graph the relation. Use values of  $x$  from  $-2$  to  $2$ .

a)  $y = x + 1$

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

b)  $y = 3 - 2x$

x	y
-2	7
-1	5
0	3
1	1
2	-1



**CURRICULAR COMPETENCIES Questions:**

1. For each table of values below, does it represent a linear relation? If the relation is not linear, explain how you know. If the relation is linear, describe it. (RA, CmRp)

x	y
1	5
2	12
3	19
4	26
5	33

Yes

x	y
1	1
3	3
5	7
7	13
9	21

No  
because  
not a constant  
rate of change.

x	y
4	11
2	14
0	17
-2	20
-4	23

Yes.

x	y
-2	-12
-1	-5
0	0
1	3
2	4

No  
not a constant  
rate of change.

2. Each table of values represents a linear relation. Complete each table. Give reasons. (US)

x	y
1	6
2	10
3	14
4	18
5	22

x	y
1	7
3	3
5	-1
7	-5
9	-9

x	y
4	9
2	14
0	19
-4	24
-12	29

**ONGOING LEARNING ACTIVITIES:**

CORE: Page 170: Curricular Competencies: 5, 9, 14

Content: 7bc, 10ace, 11, 13, 15

ADVANCED: Page 173: 17, 18