Jennifer is starting a business making pies. The first day she makes 20, the second she makes 25, the third day 30 and the fourth 35.

  a) Show this information in a t-chart.

X	y
1 ×5	20
2 ×5	25
3	30
4	35

  b) Write an equation to represent this situation.

Pattern +5
Adjustment +15

$$y = 5X + 15$$

$$y = 5x + 15$$

c) Use your equation to determine the number of pies Jennifer would make on day 10 if she continued this pattern.

$y = 5x + 15$

$y = 5(10) + 15$

$y = 50 + 15$

$y = 65 \text{ pies}$

d) On what day would she make 85 pies?

$y = 5x + 15$

$85 = 5x + 15$

$5x + 15 = 85 - 15$

$\dfrac{5x}{5} = \dfrac{70}{5}$

$x = 14\text{th day}$

$x = \#$ of days

$y = \#$ of pies.

x	y
1	24
2	27
3	30
4	33
5	36

x	y
2	8
4	16
6	24
8	34
10	40

x	y
2	15
3	22
4	29
5	36
6	43

Which t-charts represent linear functions ???????

x	y
8	16
10	20
11	22
15	30

x	y
5	12
6	14
7	16
8	18
9	20

x	y
8	15
6	20
4	24
2	21
0	18

Gorman's Taxi charges an initial fee of $5.00 and $2.00 a kilometer.

a) Write the equation to represent this situation.

x	y
1	7
2	9
3	11

$$y = \underset{\uparrow}{\underline{}} x + \underset{\uparrow}{\underline{}}$$

Pattern   Adjusment

$y = 2x + 5$

b) How much would it cost to travel 53 kilometers?

$y = 2x + 5$
$y = 2(53) + 5$
$y = 106 + 5$
$y = \$111.00$

c)   How many kilometers could you travel with $41.00?

$X = \#$ of Kms.
$y = $ Total Cost $

$y = 2x + 5$
$41 = 2x + 5$
$2x + 5 = 41 - 5$
$\dfrac{2x}{2} = \dfrac{36}{2}$
$x = 18$ Km

1.

x	y
1	24
2	26
3	28
4	30
5	32

+2

2.

x	y
2	8
3	16
4	24
5	32
6	40

+8

3.

x	y
2	20
3	16
4	12
5	8
6	4

−4

Write the equation for each of the following:

4.

x	y
8	16
9	20
10	24
11	28

+4

5.

x	y
5	30
6	25
7	20
8	15
9	10

−5

6.

x	y
9	28
10	31
11	34
12	37
13	40

+3

1. $y = 2x + 22$

2. $y = 8x - 8$

3. $y = -4x + 28$

4. $y = 4x - 16$

5. $y = -5x + 55$

6. $y = 3x + 1$

How many people can sit at the tables?
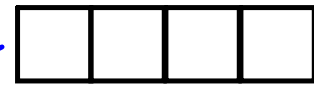(only one person per edge)

Table Seating

1 Table   2 Tables   3 Tables   4 Tables

How many people can sit
with 100 tables?

X	Y
1×2	4
2	6
3	8
4	10

X = # of tables
y = # of people

$y = 2x + 2$
$y = 2(100) + 2$
$y = 200 + 2$
$= 202$ people.

Wait right there!!

Check out page 159,
questions 4 to 10