

**Practice: Explore Non-Linear Relations**

1. Graph the relation in each table of values.

a)

$x$	$y$
-2	4
-1	1
0	0
1	1
2	4

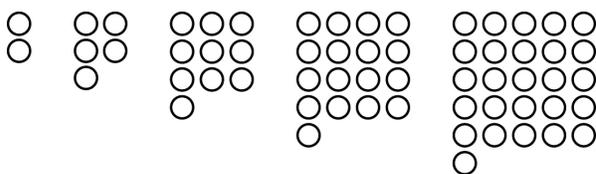
b)

$x$	$y$
-2	8
-1	5
0	4
1	5
2	8

c)

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

2. The first five figures of a pattern are shown below.



a) Complete the table below for the five figures.

Figure	Number of Circles
1	2
2	5
3	
4	
5	

b) Graph the data on grid paper.  
 c) Draw a curve of best fit.

3. The area of a square is equal to the square of the side length.

- a) Find the area for 5 squares with side lengths 1 cm to 5 cm. Record your answers in a table of values.  
 b) Graph the data on grid paper and join the points with a smooth curve.

4. Marie e-mailed two friends a funny story she read on the internet. Each friend passed the e-mail onto two other friends, and so on.

- a) Make a table of values for the first 6 sets of e-mails. Plot the points on a graph and join them with a smooth curve.  
 b) If there are 129 people on the school e-mail system, how many e-mails have to be exchanged before everyone has read it?