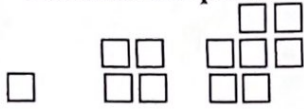
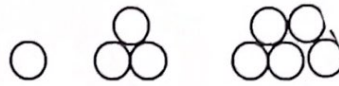


1) Consider the pattern below



- a) How many squares are in the next figure
- b) Write a linear equation to represent the pattern
- c) How many squares are in the 7th diagram
- d) How many squares are in the 16th diagram
- e) Which figure would have 106 squares?

2) Consider the pattern below



- a) How many circles are in the next figure
- b) Write a linear equation to represent the pattern
- c) How many circles are in the 8th diagram
- d) How many circles are in the 20th diagram
- e) Which figure would have 83 circles?

3) Row 1 has 7 beads, row 2 has 12 beads, row 3 has 17 beads etc. Each successive row gains 5 more beads. Finish the formula below

row #	number of beads
1	7
2	12
3	17

$b = \text{___} n + \text{___}$

How many beads are in row 10?

How many in row 200?

Which row has 92 beads?

4) Figure 1 has 5 circles
Figure 2 has 8 circles
Figure 3 has 11 circles

Finish the formula

$C = \text{___} n + \text{___}$

How many circles are in figure 12?

How many circles are in figure 100?

Which figure has 110 circles?

5) Consider the pattern
7, 16, 25

a) Write the next 3 terms

b) Develop an equation for this pattern

c) What is the value of the 125th term?

d) Which term is 358?

6) RSS pays a company \$88 to design a T-shirt. Each shirt costs \$10 to make. Fill in the table below

# of shirts	Cost total
0	\$88
5	\$138
10	\$188
15	
30	
55	
	868

Create a formula for the above

Cost =

7) Create a formula for each of the tables below

x	y
0	13
1	16
2	19
3	22

y =

x	y
0	17
1	24
2	31
3	38

y =

x	y
0	12
1	8
2	4
3	0

y =

x	y
0	4
1	5.5
2	7
3	8.5

y =

x	y
1	-1.3
2	1.4
3	4.1
4	6.8

y =

x	y
1	-0.5
2	-4
3	-7.5
4	-11

y =

x	y
1	1
2	-5
3	-11
4	-17

y =

x	y
1	8.2
2	15.4
3	22.6
4	29.8

y =