Exercises of online lesson on 26th, June

Grade: _____   Name: _____

1. The first four figures of a pattern are shown below.


Figure 1   Figure 2   Figure 3   Figure 4
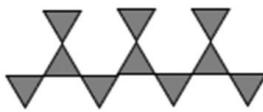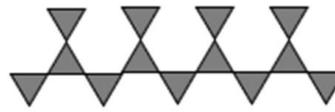
The table shows the number of triangles used for each figure.

| Figure Number	1	2	3	4	5	...	n
Number of triangles	4	7	10	13		...	

(a) Fill in the table for Figure 4 and Figure 5.
(b) Fill in the table for Figure n.
(c) Find the number of triangles in Figure 2020.
(d) Alex uses 298 triangles to form Figure x. Find the value of x.

2. In a restaurant, 6 people can sit at one table. There are two ways to place tables as shown in the figure below.

The first way
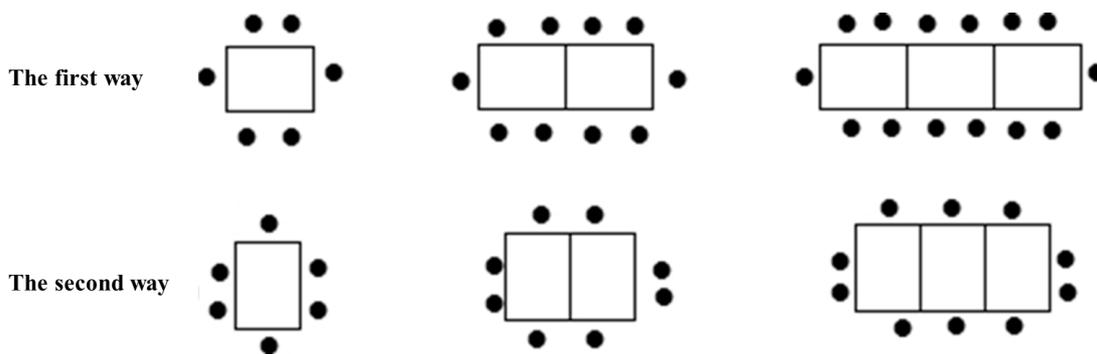
The second way

How many people can sit in the first way when there are n tables? How about the second way? (Express your answer in terms of n)

3. Tony uses matches to form figures that follow a pattern. The first four figures are shown below.

Figure 1   Figure 2   Figure 3   Figure 4
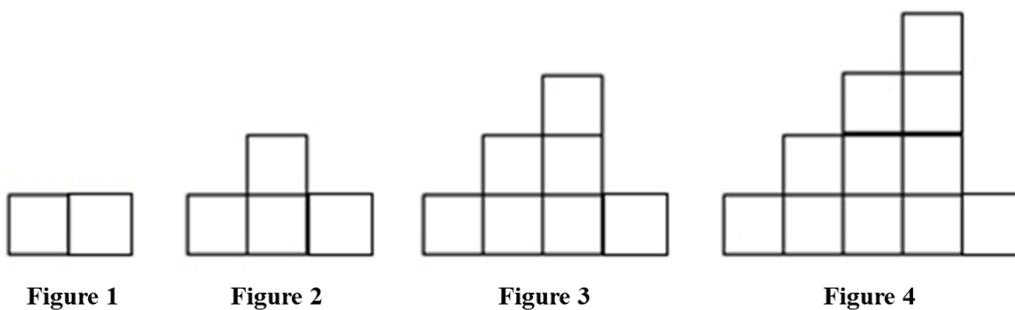
The table shows the number of matches used for each figure.

Figure Number	1	2	3	4	…	11
Number of matches	7	13	21	31	…	

Fill in the table for Figure 11.