Name_____   **Date**_____

Assignment 1-2

1. Shown here are the first three arrangements in a sequence of tiles.
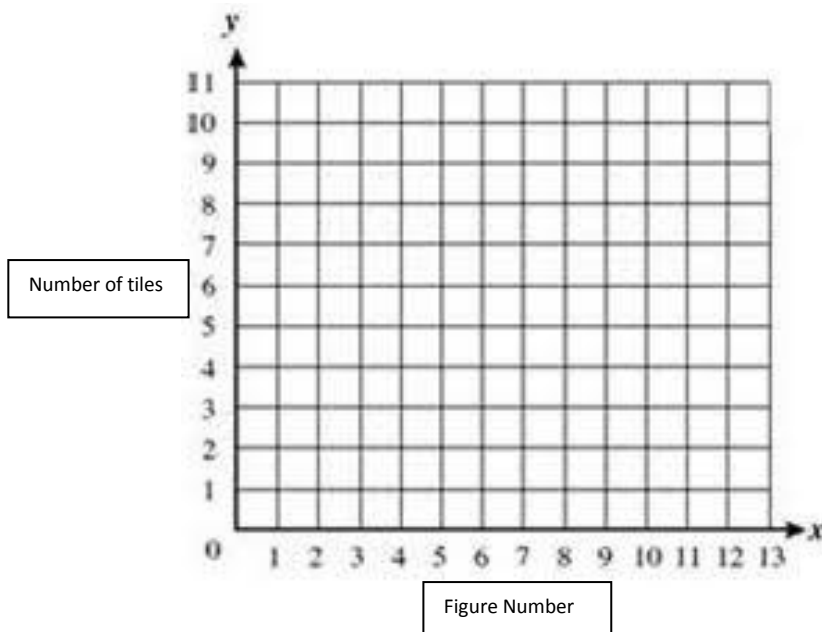
Figure 1   Figure 2   Figure 3

■ ■   ■ ■ ■   ■ ■ ■ ■

a) Describe, in words only, the 10th arrangement so anyone who reads your description could build it.

b) Determine the number of tiles in the 4th arrangement.

c) On the grid below, make a graph showing the number of tiles in the first ten arrangements of the above sequence.

d) Find an expression for the number of tiles in the ***nth*** arrangement. Draw rough sketches or diagrams to show how you obtained this expression.

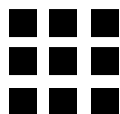2.   Shown here are the first three arrangements in a sequence of tiles.

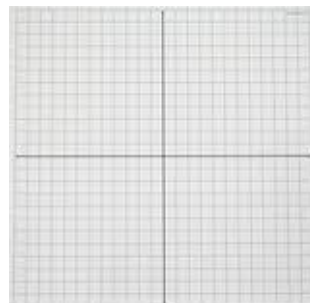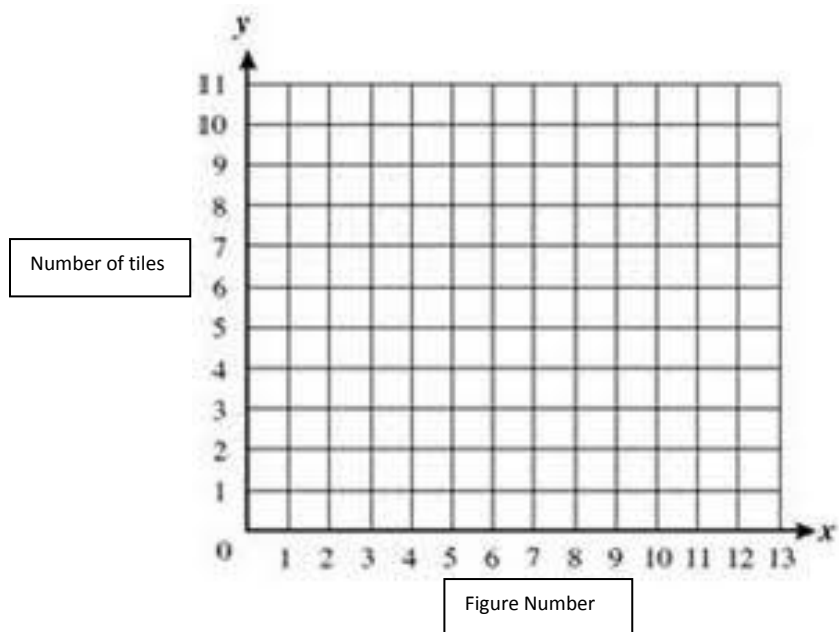Figure 1   Figure 2   Figure 3

■ ■ ■   ■ ■ ■   ■ ■ ■
                            ■ ■ ■   ■ ■ ■
                                                        ■ ■ ■

a) Describe, in words only, the 10th arrangement so anyone who reads your description could build it.

b) Determine the number of tiles in the 4th arrangement.

c) On the grid below, make a graph showing the number of tiles in the first five arrangements of the above sequence.

Number of tiles

Figure Number

Review - Sketch the graph of an exponential decreasing function.