## Review Day \#1 - Patterns and Relationships

A geometric pattern is a sequence of figures made up of several pieces. There is often a relationship between the figure number (i.e. Figure 3) and the number of pieces required to build it. The pattern can be described in various ways.

## Example One

A geometric pattern:

figure 1 figure 2

a) Sketch figure 4 in the pattern.

b) Determine the number of squares in figure 4 in the pattern using a table of values.

| Fig\# | \# of boxes |
| :---: | :---: |
| 1 | 3 |
| 2 | 5 |
| 3 | 7 |
| 4 | 9 |

c) Determine the number of squares in figure 4 in the pattern using words or an algebraic expression.

$$
\begin{aligned}
& \text { Figure } \# \times 2+1=\text { value } \\
& n=2 f+1 \\
& n=\text { number of squares } \\
& f=f i g \#
\end{aligned}
$$

d) Determine the number of squares in figure 4 in the pattern using a scatter plot.


Complete p. 502 \#1, 2.

I WILL BE CHECKING HOMEWORK TOMORROW!

