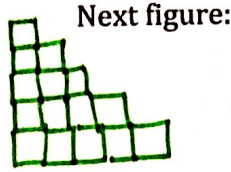
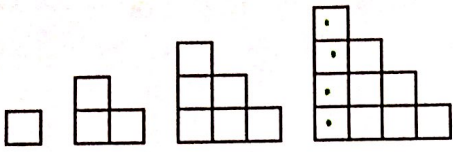


Algebra 1: 4.1 HW (Patterns)

Name Key Date _____

Describe each given pattern and draw the next figure in each pattern. Then write the number sequence for the first FIVE figures in the pattern.

1.

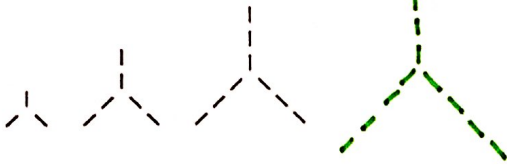


Sequence:

$$\begin{array}{ccccccc} 1 & 3 & 6 & 10 & 15 \\ \checkmark & \checkmark & \checkmark & \checkmark & \\ +2 & +3 & +4 & +5 & \end{array}$$

Pattern: Each Row & col add a SQUARE ↗ ↖

2.



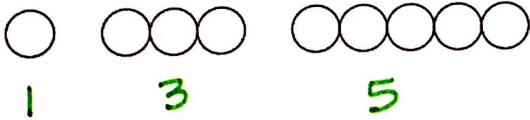
Next figure:

Sequence:

$$\begin{array}{ccccccc} 3 & 6 & 9 & 12 & 15 \\ \checkmark & \checkmark & \checkmark & \checkmark & \\ +3 & +3 & +3 & +3 & \end{array}$$

Pattern: each leg adds a dash adding 3

3.



Next figure:

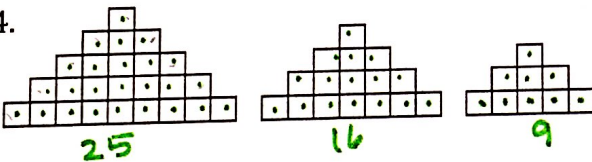
Sequence:



$$\begin{array}{ccccccc} 1 & 3 & 5 & 7 & 9 \\ \checkmark & \checkmark & \checkmark & \checkmark & \\ +2 & +2 & +2 & +2 & \end{array}$$

Pattern: add 2 circles

4.



Next figure:

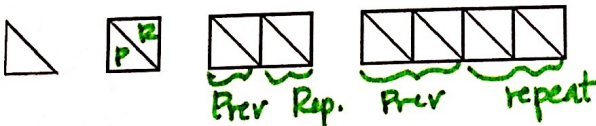
Sequence:



$$\underline{25} \quad \underline{16} \quad \underline{9} \quad \underline{4} \quad \underline{1}$$

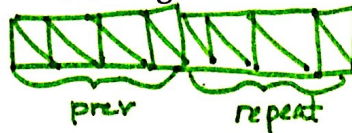
Pattern: Reduce outside edges by 1 square
Perfect square #'s Reducing

5.



Next figure:

Sequence:



$$1 \quad \underline{2} \quad \underline{4} \quad \underline{8} \quad \underline{16}$$

Pattern: Add previous term to itself
OR DOUBLING

$$\begin{array}{ccccccc} \checkmark & \checkmark & \checkmark & \checkmark & \\ \times 2 & \times 2 & \times 2 & \times 2 & \\ \text{Mult.} & & & & \\ & & & & \text{by 2} \end{array}$$