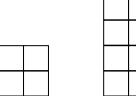
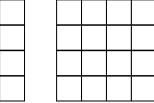
## **Practice - Introduction to Exponential Functions**

Name \_\_\_\_\_ Date \_\_\_\_

1. Complete the table below based on the pattern.



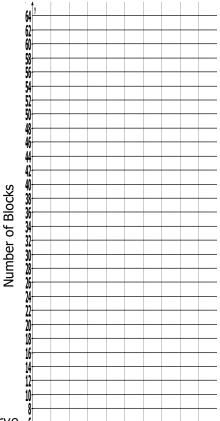


Stage 1

Stage 2

Stage 3

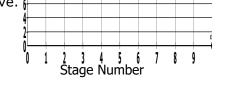
x	У
0	
1	
2	
3	
4	



Period

- 2. Shade in the graph based on your table.
- 3. Plot the ordered pairs from the table, connect with a smooth curve.
- 4. How many blocks would be needed for the 5<sup>th</sup> stage?

Draw this on the graph.



5. If the equation  $y = 2 \cdot 2^x$  represents this function and 131,072 blocks were used, what would be the stage number?



6. Give an example of an exponential growth scenario. Explain why this models exponential growth.



- 7. Give an example of an exponential decay scenario. Explain why this models exponential decay.
- 8. Determine the domain and range of the function in this situation.