## Rule of 4 Link Sheet

Communicating what we know about: Patterns
Use pattern tiles as needed to help you complete the Link Sheet.

| Models * |  |  |
| :---: | :---: | :---: |
|  |  |  |
| 1st Step | 2nd Step |  |
| 3rd Step |  |  |

Sketch Steps 4 and 5 below:

* Pattern adapted from NJ HSPA Gr. 11: Patterns, Functions, \& Algebra Recognize, create, and extend a variety of patterns and use inductive reasoning to understand and represent mathematical and other real-world phenomena.

Graph


Table of Values

| Step | Number of <br> Dots |
| :---: | :---: |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| $:$ |  |
| 12 |  |
| n |  |

## Communication

1. Explain how you could find the number of dots in step 20 without actually drawing them.
2. What would be the number of dots in the 20th Step?
3. Write an algebraic expression for the number of dots in the nth step.
