-) = these are NOT linear.

1. Write the pattern in words and write the equation.

| $x$ | $y$ |
| :---: | :---: |
| 0 | -4 |
| 1 | -1 |
| 2 | 2 |
| 3 | 5 |
| 4 | 8 |

2. Write the pattern in words and write the equation.

| -$)$ |  |
| :---: | :---: |
| $x$ | $y$ |
| 0 | 1 |
| 1 | 4 |
| 2 | 16 |
| 3 | 64 |
| 4 | 256 |

Name $\qquad$ Hr $\qquad$

In the diagram below, what is the relationship between the number of triangles and the perimeter of the figure they form?

3. Represent the above relationship by filling in the table below. Let $n$ represents the number of triangles in each pattern.

| Number of <br> Triangles Perimeter <br> 1  <br> 2  <br> 3  <br> 4  <br> $n$  |
| :---: | :---: |

4. Represent the above relationship by drawing a graph.


Write the equation.
\#5

| $x$ | $y$ |
| :---: | :---: |
| 4 | 5 |
| 5 | 6 |
| 6 | 7 |
| 7 | 8 |
| 8 | 9 |

Write the equation.
\#7

| $x$ | $y$ |
| :---: | :---: |
| 1 | 4 |
| 2 | 7 |
| 3 | 10 |
| 4 | 13 |
| 5 | 16 |

Write the equation. ©)
\#9

| $x$ | $y$ |
| :---: | :---: |
| 3 | 9 |
| 4 | 16 |
| 5 | 25 |
| 6 | 36 |
| 7 | 49 |

Write the equation. ©
\#11

| $x$ | $y$ |
| :---: | :---: |
| 1 | 7 |
| 2 | 49 |
| 3 | 343 |
| 4 | 2401 |
| 5 | 16807 |

Write the equation. ©)
\#13

| $x$ | $y$ |
| :---: | :---: |
| 0 | 3 |
| 1 | 5 |
| 2 | 11 |
| 3 | 21 |
| 4 | 35 |

Write the words.
\#6

| $x$ | $y$ |
| :---: | :---: |
| -2 | 4 |
| -1 | 2 |
| 0 | 0 |
| 1 | -2 |
| 2 | -4 |

Write the equation.
\#8

| $x$ | $y$ |
| :---: | :---: |
| 0 | 7 |
| 1 | 6 |
| 2 | 5 |
| 3 | 4 |
| 4 | 3 |

Write the equation. ©) \#10

| $x$ | $y$ |
| :---: | :---: |
| 0 | 0 |
| 1 | 2 |
| 2 | 8 |
| 3 | 18 |
| 4 | 32 |

Write the equation. $)$
\#12

| $x$ | $y$ |
| :---: | :---: |
| 1 | 0 |
| 2 | 7 |
| 3 | 26 |
| 4 | 63 |
| 5 | 124 |

Write the equation. ©)
\#14

| $x$ | $y$ |
| :---: | :---: |
| 0 | 1 |
| 1 | -1 |
| 2 | -7 |
| 3 | -17 |
| 4 | -31 |

