Worksheet 1. Writing patterns as expressions
Algebra

Name
Period
$\qquad$
$\qquad$
For each sequence of numbers given, write an expression for the nth term of the sequence. Use the chart to show that your expression works for all the numbers given.
$9,18,27,36, \ldots \ldots$.

| n | Rule | Term |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| n |  |  |

$8,15,22,29, \ldots$

| n | Rule | Term |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| $n$ |  |  |

$3.5,5,6.5,8,9.5 \ldots$


3, 9, 27, 81, $243 \ldots$

| n | Rule | Term |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| n |  |  |

The odd numbers.

| n | Rule | Term |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| n |  |  |

