Using Variables in Number Patterns

Name: _____ Date: _____

Instructions: Look at each number pattern. Find the rule and write it using algebra. Use *n* to represent the position number.

1. Pattern: 3, 6, 9, 12, 15, ...

What is the rule for this pattern?

Rule: _____

2. Pattern: 5, 10, 15, 20, 25, ...

What is the rule for this pattern?

Rule: _____

3. Pattern: 2, 4, 6, 8, 10, ...

What is the rule for this pattern?

Rule: _____

4. Pattern: 7, 14, 21, 28, 35, ...

What is the rule for this pattern?

Rule: _____

5. Pattern: 1, 3, 5, 7, 9, ...

What is the rule for this pattern?

Rule: _____

6. Pattern: 4, 8, 12, 16, 20, ...

What is the rule for this pattern?

Rule: _____

Challenge Questions:

7. If the rule is $n \times 6$, write the first 5 numbers in the pattern:

   _____, _____, _____, _____, _____

8. Create your own pattern with the rule $n \times 9$:

   _____, _____, _____, _____, _____

9. The 10th number in the pattern 3, 6, 9, 12, ... is: