



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Algebra 1 – Unit 2 – Inputs and Outputs (Challenge)

1. Pattern: (3, 15), (6, 21). Find output for input 10
2. Rule:  $6(x + 5)$ , Input: 2, Output: ?
3. Rule:  $3(x + 10)$ , Input: 3, Output: ?
4. Pattern: (2, 15), (8, 39). Find output for input 6
5. Rule:  $2(x + 3) + 12$ , Output: 34, Input: ?
6. Rule:  $3(x + 6)$ , Input: 5, Output: ?
7. Pattern: (1, 5), (5, 13). Find output for input 9
8. Pattern: (3, 19), (5, 27). Find output for input 5
9. Pattern: (4, 22), (6, 30). Find output for input 9
10. Rule:  $3(x + 6) + 3$ , Output: 39, Input: ?



# Algebra 1 – Unit 2 – Inputs and Outputs (Challenge) – Answer Key

1. Pattern: (3, 15), (6, 21). Find output for input 10

**x = 29**

6. Rule:  $3(x + 6)$ , Input: 5, Output: ?

**x = 33**

2. Rule:  $6(x + 5)$ , Input: 2, Output: ?

**x = 42**

7. Pattern: (1, 5), (5, 13). Find output for input 9

**x = 21**

3. Rule:  $3(x + 10)$ , Input: 3, Output: ?

**x = 39**

8. Pattern: (3, 19), (5, 27). Find output for input 5

**x = 27**

4. Pattern: (2, 15), (8, 39). Find output for input 6

**x = 31**

9. Pattern: (4, 22), (6, 30). Find output for input 9

**x = 42**

5. Rule:  $2(x + 3) + 12$ , Output: 34, Input: ?

**x = 8**

10. Rule:  $3(x + 6) + 3$ , Output: 39, Input: ?

**x = 6**