



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: ?

$$x = 6$$