



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

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

## Inputs and Outputs – Challenge

1. Rule:  $3(x + 2) + 6$ , Output: 24, Input: ?
2. Rule:  $3(x + 10)$ , Input: 6, Output: ?
3. Pattern: (2, 17), (7, 37). Find output for input 5
4. Pattern: (2, 18), (7, 43). Find output for input 8
5. Rule:  $2(x + 4) + 9$ , Output: 23, Input: ?
6. Rule:  $3(x + 3) + 10$ , Output: 34, Input: ?
7. Rule:  $3(x + 3) + 10$ , Output: 43, Input: ?
8. Rule:  $5(x + 11)$ , Input: 3, Output: ?



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## Inputs and Outputs - Challenge

9. Rule:  $3(x + 5) + 12$ , Output: 45, Input: ?

10. Rule:  $3(x + 11)$ , Input: 4, Output: ?

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

12. Rule:  $4(x + 3) + 10$ , Output: 30, Input: ?

13. Rule:  $6(x + 12)$ , Input: 3, Output: ?

14. Rule:  $2(x + 7) + 4$ , Output: 32, Input: ?

15. Pattern: (1, 12), (7, 30). Find output for input 12

16. Rule:  $3(x + 5) + 5$ , Output: 41, Input: ?



## Inputs and Outputs – Challenge – Answer Key

1. Rule:  $3(x + 2) + 6$ , Output: 24, Input: ?      2. Rule:  $3(x + 10)$ , Input: 6, Output: ?

$$x = 4$$

$$x = 48$$

3. Pattern: (2, 17), (7, 37). Find output for input 5

$$x = 29$$

4. Pattern: (2, 18), (7, 43). Find output for input 8

$$x = 48$$

5. Rule:  $2(x + 4) + 9$ , Output: 23, Input: ?

$$x = 3$$

6. Rule:  $3(x + 3) + 10$ , Output: 34, Input: ?

$$x = 5$$

7. Rule:  $3(x + 3) + 10$ , Output: 43, Input: ?

$$x = 8$$

8. Rule:  $5(x + 11)$ , Input: 3, Output: ?

$$x = 70$$



## Inputs and Outputs – Challenge – Answer Key

9. Rule:  $3(x + 5) + 12$ , Output: 45, Input: ?

$$x = 6$$

10. Rule:  $3(x + 11)$ , Input: 4, Output: ?

$$x = 45$$

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

$$x = 40$$

12. Rule:  $4(x + 3) + 10$ , Output: 30, Input: ?

$$x = 2$$

13. Rule:  $6(x + 12)$ , Input: 3, Output: ?

$$x = 90$$

14. Rule:  $2(x + 7) + 4$ , Output: 32, Input: ?

$$x = 7$$

15. Pattern: (1, 12), (7, 30). Find output for input 12

$$x = 45$$

16. Rule:  $3(x + 5) + 5$ , Output: 41, Input: ?

$$x = 7$$