



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

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

## Challenge Equations Practice

11. If  $2a + 3b = 16$  text{ and }  $a \neq 2$ , text{ find } b
6. If  $5a + 2b = 20$  text{ and }  $a = 2$ , text{ find } b
2. If  $x = 6$  makes  $4x + 6 = 6x + ?$  true, find ?
7. If  $6x + 14 = 68$ , subtract what from both sides to get  $6x = 54$ ?
12. If  $x = 11$  makes  $5x + 4 = 6x + ?$  true, find ?
3. If  $2x + 15 = 21$ , subtract what from both sides to get  $2x = 6$ ?
8. If  $3a + 4b = 33$  text{ and }  $a = 3$ , text{ find } b
4. If  $4x + 6 = 18$ , subtract what from both sides to get  $4x = 12$ ?
9. If  $2x + 9 = 15$ , subtract what from both sides to get  $2x = 6$ ?
5. If  $x = 5$  makes  $2x + 6 = 3x + ?$  true, find ?
10. If  $3a + 3b = 42$  text{ and }  $a = 6$ , text{ find } b



## Challenge Equations Practice – Answer Key

11. If  $2a + 3b = 16$  text{ and }  $a = 2$ , text{ find } b

$$x = 0$$

6. If  $5a + 2b = 20$  text{ and }  $a = 2$ , text{ find } b

$$x = 5$$

2. If  $x = 6$  makes  $4x + 6 = 6x + ?$  true, find ?

12. If  $x = -6$  11 makes  $5x + 4 = 6x + ?$  true, find ?

$$x = -7$$

7. If  $6x + 14 = 68$ , subtract what from both sides to get  $6x = 54$ ?

$$x = 14$$

3. If  $2x + 15 = 21$ , subtract what from both sides to get  $2x = 6$ ?

$$x = 15$$

8. If  $3a + 4b = 33$  text{ and }  $a = 3$ , text{ find } b

$$x = 6$$

4. If  $4x + 6 = 18$ , subtract what from both sides to get  $4x = 12$ ?

$$x = 6$$

9. If  $2x + 9 = 15$ , subtract what from both sides to get  $2x = 6$ ?

$$x = 9$$

5. If  $x = 5$  makes  $2x + 6 = 3x + ?$  true, find ?

$$x = 1$$

10. If  $3a + 3b = 42$  text{ and }  $a = 6$ , text{ find } b

$$x = 8$$