



Name: _____

Date: _____

Challenge Equations Practice

11. If $2a + 4b = 16$ and $a = 2$, find b
12. If $x = 6$ makes $4x + 6 = 6x + ?$ true, find $?$
13. If $x = 11$ makes $5x + 4 = 6x + ?$ true, find $?$
14. If $2x + 15 = 21$, subtract what from both sides to get $2x = 6$?
15. If $4x + 6 = 18$, subtract what from both sides to get $4x = 12$?
16. If $x = 5$ makes $2x + 6 = 3x + ?$ true, find $?$
17. If $5a + 2b = 20$ and $a = 2$, find b
18. If $6x + 14 = 68$, subtract what from both sides to get $6x = 54$?
19. If $3a + 4b = 33$ and $a = 3$, find b
20. If $2x + 9 = 15$, subtract what from both sides to get $2x = 6$?
21. If $3a + 3b = 42$ and $a = 6$, find b



Challenge Equations Practice – Answer Key

11. If $2a + 4b = 16$ makes $4a + ? = 8$ true, find b

$$x = 0$$

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

$$x = 5$$

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

12. If $x = -6$ 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 $3a + 4b = 33$ and $a = 3$, 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 $3a + 3b = 42$ and $a = 6$, find b

$$x = 8$$