Systems of Linear Equations

Strategy Hint **If one of the equations in the system is already solved for a variable, use substitution.**
If one of the variables has a coefficient of 1, use either substitution or elimination.
If, a variable is not solved for or the coefficients are not 1, then use elimination.

Solve each system by linear combination or substitution.

1. $x + y = 7$
$x - 7 = 3$

2. $a = 9 - 2b$
$3a - 2b = 19$

3. $x = 2y - 2$
$8x + 2y = 2$

4. $x + 3y = 7$
$-x + 2y = 3$

5. $2x + 3y = 10$
$x + 4y = 10$

6. $-x + 6w = 11$
$-2x + 3w = 4$

7. $2a + 5d = 1$
$-3a + 4d = 10$

8. $4m + 5n = 12$
$-2m + n = -6$

9. $3x + 4y = 17$
$-x + 3y = 3$

10. $a - 4b = 3$
$5a - 2b = 33$

11. $6x + 7y = -20$
$-5x + 2y = -1$

12. $4m + n = -5$
$m + 5n = -13$

13. $3x + 7y = 2$
$4x + 2y = -12$

14. $5a + b = 28$
$-2a + 3b = -1$

15. $6x + 7y = 5$
$5x + 4y = 6$