

Solving Systems by Substitution

Steps

1. One equation will have either x or y by itself, or can be solved for x or y easily.
2. Substitute the expression from Step 1 into the other equation and solve for the other variable.
3. Substitute the value from Step 2 into the equation from Step 1 and solve.
4. Your solution is the ordered pair formed by x & y .
5. Check the solution in each of the original equations.

1. $x = -4$
 $3x + 2y = 20$

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

3. $3x + 2y = -12$
 $y = x - 1$

4. $x = \frac{1}{2}y - 3$
 $4x - y = 10$

5. $x = -5y + 4$
 $3x + 15y = -1$

6. $2x - 5y = 29$
 $x = -4y + 8$

7. $x = 5y + 10$
 $2x - 10y = 20$

8. $2x - 3y = -24$
 $x + 6y = 18$