

Solving Systems of Linear Equations by Multiplication with Addition Method

1. solve the following

$$6x + 5y = 6$$

$$6x - 3y = 6$$

2. $6x + 5y = 6$
 $(-1)(6x - 3y = 6)$ } Multiplication to create additive inverse

3. $6x + 5y = 6$
 $-6x + 3y = -6$ } Addition method
 $8y = 0$
 $y = 0$

4. $6x + 5y = 6$
 $6x + 5(0) = 6$ } Substitute
 $6x = 6$
 $x = 1$

Solve the following.

1. $3x + 6y = 6$
 $2x + y = 1$ (0,1)

6. $8x + 3y = -21$
 $4x + 5y = -7$ (-3,1)

2. $3x - 4y = 0$
 $x - y = 1$ (4,3)

7. $3x + y = 4$
 $x + 3y = 4$ (1,1)

3. $4x - 4y = 12$
 $3x + 2y = 4$ (2,-1)

8. $x + y = -1$
 $2x - y = -5$ (-2,1)

4. $2x - 3y = 14$
 $x + 3y = 7$ (7,0)

9. $3x + y = 8$
 $x + 2y = 1$ (3,-1)

5. $3x + 5y = 16$
 $2x - y = 2$ (2,2)

10. $x + 5y = -7$
 $2x + 7y = -8$ (3,-2)