



7.2 The Substitution Method

Need To Know



- The idea of the substitution method
- The steps for the substitution method
- Apply



Idea of the Substitution Method

$$x + y = 3$$


$$y = x + 5$$

Goal (click when ready to solve)

1. Turn two equations with two variables into one equation with one variable.
2. Solve to get one answer.

Steps for Substitution

1. Solve _____
2. Substitute the expression for the variable into the _____ equation and solve it.
3. Back _____ to find the solution for the other variable.
4. _____ your ordered pair in both equations.




Solve by Substitution Method

$$-5x + y = -1$$

$$-2x + 3y = 10$$

Steps for Substitution

1. Get x or y by itself
2. Substitute into the other equation and solve it.
3. Solve for other variable.
4. Check




Solve by Substitution Method

$$x - 4y = -5$$

$$3x - 2y = 5$$

Steps for Substitution

1. Get x or y by itself
2. Substitute into the other equation and solve it.
3. Solve for other variable.
4. Check



Solve by Substitution Method

$$4x + 2y = 3$$

$$x = 4y - 3$$

Steps for Substitution

1. Get x or y by itself
2. Substitute into the other equation and solve it.
3. Solve for other variable.
4. Check



Solve Two Variable Word Problems

The sum of two numbers is 76.

One number is 2 more than the other.

Find the numbers



Solve Two Variable Word Problems

The perimeter of a Lacrosse field is 340 yards.
The length is 10 yd. less than twice the width.
Find the length and the width.