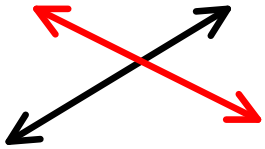
Solving Systems of Equations by Elimination/Addition

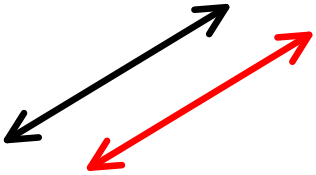


Intersecting Lines

One Solution

Consistent

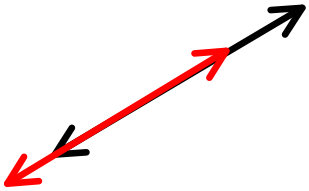
Independent



Parallel Lines

No Solution

Inconsistent



Coinciding Lines

Infinite Solutions

Consistent

Dependent

Step 1: Eliminate one of the variables using "opposites".

Step 2: Add the equations and solve for the variables.

Step 3: Check your answer.

Directions: Solve each system of equations by the elimination/addition method.

1. $-x+2y=12$

   $x+6y=20$

2. $5x+3y=14$
$2x+y=6$

3. $7x=5-2y$
$3y=16-2x$

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

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

5. $.03x-.06y=9$

   $x-2y=300$