

System of Equations

A **system of equations** is a group of **equations** with the **same variables**.

$$x + y = 5$$

$$x - 5y = -7$$

$$(3, 2)$$

$$3 + 2 = 5$$

$$3 - 5(2) = -7$$



The **solution** to a **system** of equations is the ordered pair (x, y) that satisfies **both equations**

Solving a **System of Equations** by Substitution

$$y = -x + 5$$

$$y = 2x - 1$$

Solving a **System of Equations** by Substitution

$$4x - 4 = 2y \quad 3x - 2y = 11$$