

NAME: KEY

PER: _____

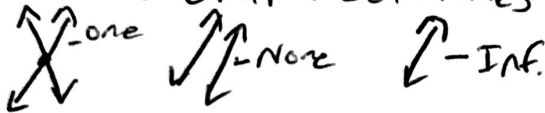
SOLVING SYSTEMS (Station)

NOTES:

WRITE THE STEPS FOR EACH METHOD & WHEN YOU USE IT.

GRAPHING

- Get both $y = mx + b$
- Graph Both lines



SUBSTITUTION

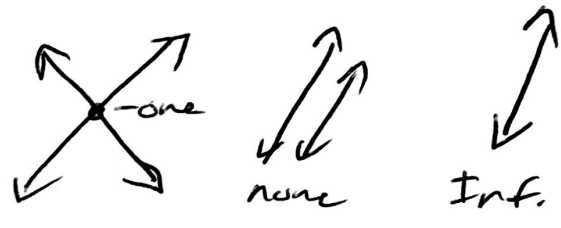
- Solve for single variable
- Substitute
- Solve for both variables

ELIMINATION

- Make something cancel
- Solve for 1st Variable
- Solve for 2nd Variable by substitution

HOW DO YOU KNOW THE DIFFERENCE BETWEEN NO SOLUTION & INFINITELY MANY?

$6 = 6$	$0 = -1$
True	False



PRACTICE:

SOLVE THE FOLLOWING SYSTEMS

$$\begin{array}{r} 1. \quad 2x + 3y = 4 \\ \quad -4x - 6y = -8 \\ \hline + 4x + 6y = 8 \end{array}$$

$$0 = 0$$

Inf. Many

$$\begin{array}{r} 3. \quad y = -3x - 13 \\ \quad -8x + 4y = -12 \end{array}$$

$$-8x + 4(-3x - 13) = -12$$

$$-8x - 12x - 52 = -12$$

$$-20x - 52 = -12$$

$$-20x = 40$$

$x = -2 \quad y = -7$

$$\begin{array}{r} 2. \quad 5x + 2y = -4 \\ \quad 2(x - y) = -5 \end{array} \quad \left\{ \begin{array}{l} x = -2 \\ y = 3 \end{array} \right.$$

$$\begin{array}{r} 5x + 2y = -4 \\ + 2x - 2y = -10 \\ \hline 7x = -14 \end{array}$$

$$\frac{7x}{7} = \frac{-14}{7}$$

$$4. \quad 4(3x + 4y) = 6$$

$$-12x - 16y = 8$$

$$+ 12x + 16y = 24$$

$$0 = 32$$

No Solution