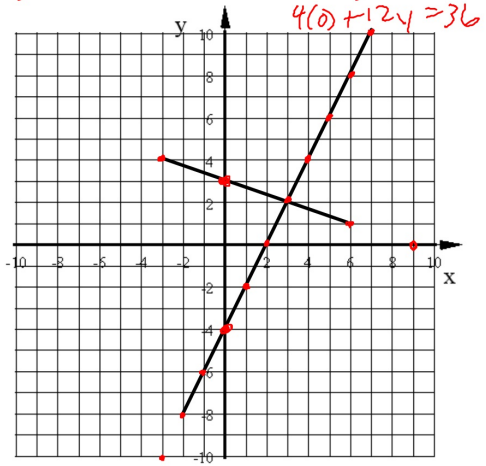
Solve this system of linear equations by graphing:

$y = 2x - 4$

$4x + 12y = 36$

$4(0) + 12y = 36$



y-int = 3

x-int = 9

Sol: (3, 2)

Solutions to a system of linear equations:

How many solutions are possible?

One, None, or Many

Solutions to a system of linear equations

One Solution: Lines intersect → Different Slope

No Solution: Lines are Parallel → Same Slope, Different y-int

Many Solutions: Same line → Same Slope, Same y-int

Without graphing tell if each system of equations has One Sol, Two Sol's, or No Sol.

1. $y = 4x - 11$, $y = 4$

$m = 4$, $m = 0$

$y = 0x + 4$

ONE

2. $y = 3x - 2$, $6x - 2y = 4$

$m =$, $m =$

many

$y = \frac{4 - 6x}{-2} = -2 + 3x$

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

$y = -3x - 18$

$+1 \quad +1$

-17

NO Sol

4. $y = 8x + 7$, $8x - 4y = 28$

$m = 8$, $m = 8$

ONE Sol