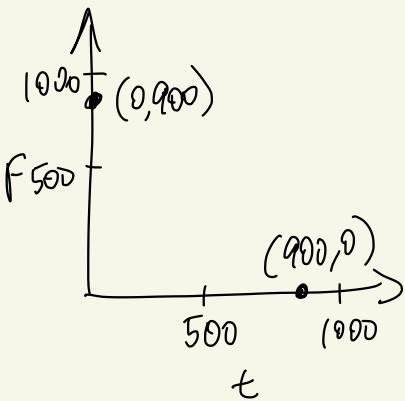


July 31, 2022



$$\begin{cases} F + t = 900 \\ 5F + 10t = 5500 \end{cases}$$

System of equations



$t$	$F$
0	1100
550	0

$$F + (0) = 900$$

$$F = 900$$

$$5F + 10(0) = 5500$$

$$\frac{5F}{\$} = \frac{5500}{5}$$

$$F = 1100$$

$$\begin{aligned} x + 2y &= 13 & (-1, 7) & 3x - y = -11 \\ 3x - y &= -11 & 3(-1) - (7) &= -11 \\ (-1) + 2(7) &= 13 & -3 - 7 &= -11 \\ -1 + 14 &= 13 & -10 &\neq -11 \end{aligned}$$

$$\cancel{5(0) + 10t = 5500}$$

$$\frac{10t}{10} = \frac{5500}{10}$$

$$t = 550$$

Does not satisfy both equations so not a solution for the system of linear equations.

In a system of equations, the solution will be the points at which those two equations intersect.

$$-8x + 4y = 24$$

$$x=0$$

$$\cancel{-8(0)} + \cancel{4y} = \cancel{24}$$

$$y = 6$$

$$(0, 6)$$

$$y=0$$

$$\cancel{-8x} + \cancel{4(0)} = \cancel{24}$$

$$\frac{-8}{-8}$$

$$x = -3$$

$$(-3, 0)$$

$$(0, 6) \text{ and } (-3, 0)$$

$$-7x + 7y = 28$$

$$x=0$$

$$\cancel{-7(0)} + \cancel{7y} = \cancel{28}$$

$$y = 4$$

$$(0, 4)$$

$$y=0$$

$$\cancel{-7x} + \cancel{7(0)} = \cancel{28}$$

$$\frac{-7}{-7}$$

$$x = -4$$

$$(-4, 0)$$

$$(0, 4) \text{ and } (-4, 0)$$

$$(-2, 2)$$

$$x = -2, y = 2$$

$$y = -2x + 3$$

~~$$y = -2(0) + 3$$~~

$$y = 3$$

$$(0, 3)$$

$$y = -x - 3$$

$$x = 0$$

~~$$y = -(0) - 3$$~~

$$y = -3 \quad (0, -3)$$

$$y = 10$$

$$(10) = -2x + 3$$

$$-3 \qquad -3$$

$$\begin{matrix} 7 = -2x \\ -7 \end{matrix}$$

$$-1 = x$$

$$(-1, 10)$$

$$y = 0$$

$$y = -x - 3$$

$$(0) = -x - 3$$

$$+3 \qquad +3$$

$$\begin{matrix} 3 = -x \\ -1 \end{matrix}$$

$$(-3, 0)$$

$$-3 = x$$

$$(0, 3) \text{ and } (-1, 10)$$

$$(0, -3) \text{ and } (-3, 0)$$

$$(1, -4)$$

$$y = 4x - 2$$

$$y = 2$$

$$\begin{array}{r} 2 = 4x - 2 \\ +2 \quad +2 \end{array}$$

$$\frac{4}{4} = \frac{4x}{4}$$

$$x = 1$$

$$(1, 2)$$

$$y = x + 3$$

$$y = 0$$

$$\begin{array}{r} 0 = x + 3 \\ -3 \quad -3 \end{array}$$

$$x = -3$$

$$(-3, 0)$$

$$x = 0$$

$$y = x + 3$$

$$x = 0$$

$$y = 0 + 3$$

$$y = 4(0) - 2$$

$$y = 3$$

$$y = -2$$

$$(0, 3)$$

$$(0, -2)$$

$$(1, 2) \text{ and } (0, -2) \quad (-3, 0) \text{ and } (0, 3)$$

$$\left(1\frac{2}{3}, 4\frac{2}{3}\right)$$

$$x = 1\frac{2}{3}$$

$$y = 4\frac{2}{3}$$

$$8x - 4y = 16$$

$$y=0$$

$$\cancel{8x - 4(0)} = 16$$
  
$$\cancel{8} \qquad \qquad \qquad 8$$

$$x=2$$

$$(2, 0)$$

$$x=0$$

$$\cancel{8(0) - 4y} = 16$$
  
$$\cancel{8} \qquad \qquad \qquad \cancel{-4} \qquad \qquad \qquad -4$$

$$y = -4$$

$$(0, -4)$$

$$(2, 0) \text{ and } (0, -4)$$

$(2, 0)$   
 $x=2, y=0$

$$8x + 4y = 16$$

$$x=0$$

$$\cancel{8(0) + 4y} = 16$$
  
$$\cancel{8} \qquad \qquad \qquad \cancel{4} \qquad \qquad \qquad 4$$

$$y=4$$

$$(0, 4)$$

$$y=0$$

$$\cancel{8x + 4(0)} = 16$$
  
$$\cancel{8} \qquad \qquad \qquad 8$$

$$x=2$$

$$(2, 0)$$

$$(2, 0) \text{ and } (0, 4)$$



$$x - 4y = 18$$

$$-x + 3y = 11$$

$$\begin{array}{r} \cancel{x} - 4y = -18 \\ \cancel{-x} + 3y = 11 \\ \hline (-1) - y = -7(-1) \\ y = 7 \end{array}$$

$$\begin{aligned} x - 4(7) &= -18 \\ x - 28 &= -18 \\ +28 & \\ x &= 10 \end{aligned}$$

$$5x - 10y = 15$$

$$3x - 2y = 3$$

$$-5(3x - 2y) = 3(-5)$$

$$\cancel{5x - 10y} = \cancel{15}$$

$$\cancel{-15x + 10y} = \cancel{-15}$$

$$\frac{-10x}{-10} = \frac{0}{10}$$

$$x = 0$$

$$\cancel{5(0)} - 10y = 15$$

$$\frac{-10y}{-10} = \frac{15}{-10}$$

$$y = -\frac{3}{2}$$

$$x = 0, y = -\frac{3}{2}$$

$$\left(0, -\frac{3}{2}\right)$$

$$5x + 7y = 15$$

$$7x - 3y = 5$$

$$7(5x + 7y) = 7(15)$$

$$-5(7x - 3y) = -5(5)$$

$$5x + 7\left(\frac{5}{4}\right) = 15$$

$$5x + \frac{35}{4} = 15$$

$$-\frac{35}{4}$$

$$\frac{5x}{5} = \frac{25}{4}/5$$

$$35x + 49y = 105$$

$$-35x + 15y = -25$$

$$\frac{64y}{64} = \frac{80}{64}$$

$$y = \frac{5}{4}$$

$$\boxed{x = \frac{5}{4}, y = \frac{5}{4} \quad \left(\frac{5}{4}, \frac{5}{4}\right)}$$

$$7y + 10x - 8 = 0 \quad \rightarrow \quad 7y + 10x - 8 = 0$$

$$2y - 5x - 18 = 0 \quad + 4y - 10x - 36$$

$$\begin{array}{r} 2(2y - 5x - 18) = 0 \quad (2) \\ 4y - 10x - 36 = 0 \\ \hline 11y - 44 = 0 \\ +4y \quad +4y \\ \hline 11y = 44 \\ \hline 11 \quad 11 \end{array}$$

$$7(4) + 10x - 8 = 0$$

$$28 + 10x - 8 = 0$$

$$\begin{array}{r} 20 + 10x = 0 \\ -20 \end{array}$$

$$\begin{array}{r} 10x = -20 \\ 10 \end{array}$$

$$x = -2$$

$$(-2, 4)$$

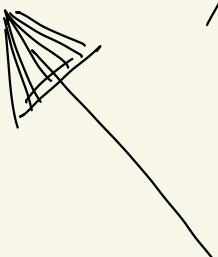
$$x = -2, y = 4$$

$$\begin{aligned} -6y + 11x &= -36 \\ -4y + 7x &= -24 \end{aligned} \quad \rightarrow \quad \begin{aligned} 4(-6y + 11x) &= 4(-36) \\ -6(-4y + 7x) &= 6(-24) \end{aligned}$$

$$-6y + 11(0) = -36$$

$$\frac{-6y}{-6} = \frac{-36}{-6}$$

$$y = 6$$



$$\cancel{2x = 0}$$

$$x = 0$$

$$x = 0, y = 6$$

$$(0, 6)$$

$$-4y + 7x = 49 \quad \rightarrow \quad -4(-4y + 7x) = -4(49)$$

$$-16y + 9x = 63$$

$$-4y + 7(7) = 49$$

$$\begin{array}{r} -4y + 49 = 49 \\ -4y \quad -4y \\ \hline 0 \end{array}$$

$$\begin{array}{r} -4y = 0 \\ \hline -4 \end{array}$$

$$y = 0$$

$$16y - 28x = -196$$

$$\underline{-16y + 9x = 63}$$

$$\begin{array}{r} -19x = -133 \\ \hline -19 \end{array}$$

$$x = 7$$

$$X = 7, Y = 0$$

$$(7, 0)$$

$X = 7, Y = 0$   
 $(7, 0)$

$$-5y + 3x = 3$$

$$-8y + 9x = -12$$

$$-5(-3) + 3x = 3$$

$$\cancel{-15} + 3x = 3$$

$$\cancel{-15} \quad \quad \quad -15$$

$$\frac{3x}{3} = \frac{-12}{3}$$

$$x = -4$$

$$-3(-5y + 3x) = 3(-3)$$

$$15y - 9x = -9$$

$$-8y + 9x = -12$$

$$\begin{array}{r} \\ \\ \hline 7y = -21 \\ \hline 7 \quad 7 \end{array}$$

$$y = -3$$

$$\boxed{\begin{array}{l} x = -4, y = -3 \\ (-4, -3) \end{array}}$$

$$3x + 8y = 15$$

$$2x - 8y = 10$$

$$3(5) + 8y = 15$$

$$15 + 8y = 15$$

$$y = 0$$

$$\cancel{3x + 8y = 15}$$

$$\cancel{+ 2x - 8y = 10}$$

$$\frac{\cancel{5}x}{\cancel{5}} = \frac{25}{5}$$

$$x = 5$$

$$\frac{8y}{8} = 0$$

$$x = 5, y = 0$$

$$(5, 0)$$

$$10y - 11x = -4 \quad \rightarrow \quad 5(-2y + 3x) = 4(5)$$

$$-2y + 3x = 4 \quad \rightarrow \quad -10y + 15x = 20$$

$$10y - 11(4) = -4$$

$$\frac{4x}{4} = \frac{16}{4}$$

$$10y - 44 = -4$$

$$+44 +44$$

$$x = 4$$

$$\frac{10y}{10} = \frac{40}{10}$$

$$y = 4$$

$$\boxed{x = 4, y = 4 \\ (4, 4)}$$

$$-3x - 4y = -2$$

$$y = 2x - 5$$

$$-3x - 4(2x - 5) = -2$$

$$-3x - 8x + 20 = -2$$

$$\begin{array}{r} -11x + 20 = -2 \\ -20 \quad -20 \end{array}$$

$$\begin{array}{r} -11x = -22 \\ -11 \quad -11 \end{array}$$

$$x = 2$$

$$y = 2(2) - 5$$

$$y = 4 - 5$$

$$y = -1$$

$$(2, -1)$$

$$x = 2, y = -1$$

$$3x + 4y = -23$$

$$x = 3y + 1$$

$$3(3y + 1) + 4y = -23$$

$$9y + 3 + 4y = -23$$

$$\begin{array}{r} 13y + 3 = -23 \\ -3 \quad -3 \end{array}$$

$$\begin{array}{r} 13y = -26 \\ 13 \quad 13 \end{array}$$

$$y = -2$$

$$x = 3(-2) + 1$$

$$x = -6 + 1$$

$$x = -5$$

$$(-5, -2), x = -5, y = -2$$

$$-5x + 2y = 9$$

$$y = 7x$$

$$-5x + 2(7x) = 9$$

$$-5x + 14x = 9$$

$$\frac{9x}{9} = \frac{9}{9}$$

$$x = 1$$

$$y = 7(1)$$

$$y = 7$$

$$\boxed{x = 1, y = 7}$$
$$(1, 7)$$

$$-4x + 11y = 15$$

$$x = 2y$$

$$-4(2y) + 11y = 15$$

$$-8y + 11y = 15$$

$$\cancel{\frac{3y}{3}} = \frac{15}{3}$$
$$y = 5$$

$$x = 2(5)$$

$$x = 10$$

$$(10, 5)$$

$$x = 10, y = 5$$

$$12x - 5y = -20$$

$$y = x + 4$$

$$12x - 5(x + 4) = -20$$

$$12x - 5x - 20 = -20$$

$$\begin{array}{r} 7x - 20 = -20 \\ +20 \quad +20 \end{array}$$

$$\frac{7x}{x} = \frac{0}{7}$$

$$x = 0$$

$$-5x + 4y = 3$$

$$x = 2y - 15$$

$$-5(2y - 15) + 4y = 3$$

$$-10y + 75 + 4y = 3$$

$$\begin{aligned} x &= 0 \\ y &= (0) + 4 \end{aligned}$$

$$y = 4$$

$$\begin{aligned} x &= 0, y = 4 \\ (0, 4) \end{aligned}$$

$$-10y + 75 + 4y = 3$$

$$\begin{array}{r} -6y + 75 = 3 \\ -75 \quad -75 \end{array}$$

$$\frac{-6y}{-6} = \frac{-72}{-6}$$

$$\begin{aligned} y &= 12 \\ x &= 2(12) - 15 \end{aligned}$$

$$x = 24 - 15 \quad x = 9$$

$$9, 12$$

$$5x - 7y = 58$$

$$y = -x + 2$$

$$5x - 7(-x + 2) = 58$$

$$5x + 7x - 14 = 58$$

$$\begin{array}{r} 12x - 14 = 58 \\ +14 \quad \quad \quad +14 \\ \hline 12x = 72 \end{array}$$

$$\frac{12x}{12} = \frac{72}{12}$$

$$x = 6$$

$$x = 6$$

$$y = -x + 2$$

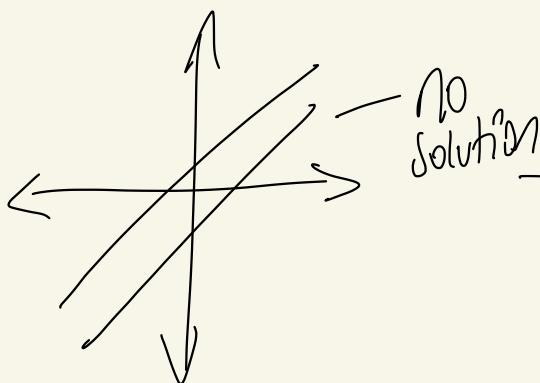
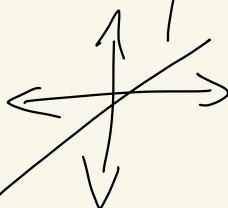
$$y = -(6) + 2$$

$$y = -6 + 2$$

$$y = -4$$

$$\boxed{6, -4}$$

infinite



$$0 = 0$$

infinite solutions

$$2 \neq 10$$

no solution

consistent = at least one solution

inconsistent = has no solutions

$$x + 2y = 13$$

$$3x - y = -11$$

$$(0) + 8y = 13$$
$$\frac{8}{8} \quad \frac{2}{2}$$

$$(0, \frac{13}{2})$$

$$(13, 0)$$

$$y = 13$$

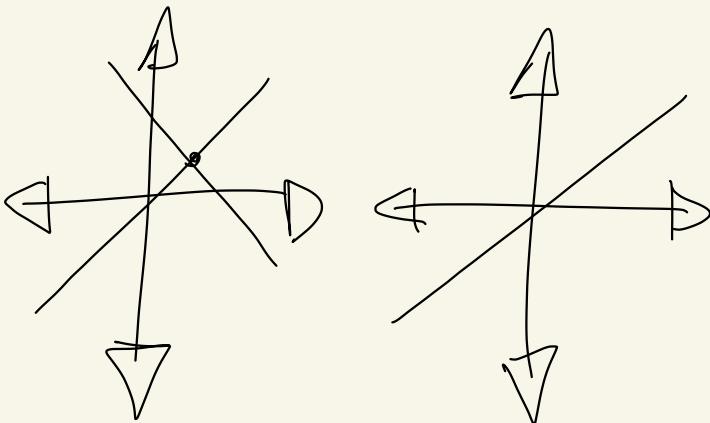
$$x + 2(0) = 13$$

$$x = 13$$

→ diff. slope

Independent

Dependent (same slope)







$$y = 5x - 2$$

$$y = 5x - 8$$

No solutions

same slope, diff y-int

$$y = -2x - 4$$

$$y = -2x - 4$$

Infinite

$$y = -5x + 10$$

$$y = -4x - 8$$

One solution

diff slope

$$4x - 6y = -24 \quad 2x - 3y = -6$$

~~$$4(0) - 6y = -24 \quad 2(0) - 3y = -6$$~~

~~$$\begin{array}{r} -6y = -24 \\ \hline -6 \end{array}$$~~      ~~$$\begin{array}{r} +3y = -6 \\ \hline -3 \end{array}$$~~

$$y = 4$$

$$(0, 4)$$

~~$$4x - 6(0) = -24$$~~

~~$$\begin{array}{r} 4x = -24 \\ \hline 4 \end{array}$$~~      
$$x = -6 \quad (-6, 0)$$

$$y = 2$$
$$(0, 2)$$

~~$$\begin{array}{r} 8x = -6 \\ \hline 2 \end{array}$$~~

$$x = -3 \quad (-3, 0)$$

No solution

$$3x - 5y = 15$$

$$6x - 10y = 30$$

$$\begin{array}{r} \cancel{3(0)} - 5y = 15 \\ \hline -5 \end{array}$$

$$y = -3$$

$$(0, -3)$$

$$\begin{array}{r} \cancel{6x - 10(0)} = 30 \\ \hline 6 \end{array}$$

$$x = 5 \quad (5, 0)$$

$$\begin{array}{r} \cancel{6(0)} - 10y = 30 \\ \hline -10 \end{array}$$

$$y = -3$$

$$(0, -3)$$

$$\begin{array}{r} \cancel{3x - 5(0)} = 15 \\ \hline 3 \end{array}$$

$$x = 5$$

$$(5, 0)$$

$$y = 3x + 3$$

$$y = -2x + 3$$

$$y = \cancel{3(0)} + 3$$

$$y = 3 \quad (0, 3)$$

$$(0) = 3x + \cancel{3}$$

$$\cancel{-3}$$

$$\frac{-3}{3} = \frac{3x}{3}$$

$$-1 = x$$

$$(-1, 0)$$

$$y = -2x + 3$$

$$y = \cancel{-2(0)} + 3$$

$$y = 3 \quad (0, 3)$$

$$(1) = -2x + \cancel{3}$$

$$\cancel{-3}$$

$$\frac{-1}{-2} = \frac{-2x}{-2}$$

$$1 = x$$

$$(1, 1)$$

$$y = -5x - 1$$

$$(4) = -5x - 1$$
$$+ 1$$

$$\frac{5}{-5} = \frac{-5x}{-5}$$

$$-1 = x$$

$$(-1, 4)$$

$$y = -5(0) - 1$$

$$y = -1$$
$$(0, -1)$$

$$y = -5x + 7$$

$$y = -5(0) + 7$$

$$y = 7 \quad (0, 7)$$

$$(-3) = -5x + 7$$

$$-7 \qquad \qquad -7$$

$$\frac{-10}{-5} = \frac{-5x}{-5}$$

$$2 = x \quad (2, -3)$$

$$\begin{array}{rcl}
 5x - 9y = 16 & & 5x - 9y = 16 \\
 5x - 9y = 36 & \swarrow & \underline{-5x + 9y = -36} \\
 & & 0 = -20 \\
 & \boxed{0 = -20} & \Rightarrow \text{No solutions}
 \end{array}$$

$$\begin{array}{rcl}
 -6x + 4y = 2 & & -6x + 4y = 8 \\
 3x - 2y = -1 & & \underline{6x - 4y = -8} \\
 & & \boxed{0 = 0} \rightarrow \text{Infinite}
 \end{array}$$

$$\begin{array}{rcl}
 y = -7x + 8 & & y = -7x + 8 \\
 y = -7x - 8 & & -y = 7x + 8 \\
 -1. & & \boxed{0 = 16} \rightarrow \text{No solutions}
 \end{array}$$

$$\begin{array}{rcl}
 y = 4x - 8 & & y = 4x - 8 \\
 4y = 4x - 8 & & -4y = -4x + 8 \\
 -1. & & \cancel{\frac{-8}{-8}} \cancel{\frac{4}{-4}} \cancel{\frac{y}{y}} = \cancel{\frac{0}{-3}} \\
 & & y = 0
 \end{array}$$

$$7y = -2x + 4 \quad \cdot 7$$

$$7y = -14x + 28$$

$$\begin{aligned} -7y &= 14x - 8 \\ 7x &= -14x + 88 \end{aligned}$$

$$0 = 0$$

$$5x - y = 2$$

$$\begin{array}{r} 5x - y = -2 \\ -1^o \qquad \cdot -1 \end{array}$$

$$\begin{array}{r} 5x - y = 2 \\ -5x + y = 2 \end{array}$$

$$0 \neq 2$$

# Quiz 1

$$8x - 4y = 16$$

$$8x + 4y = 16$$

$$\begin{array}{r} \cancel{8(0) - 4y = 16} \\ -4 \end{array}$$

$$\begin{array}{r} \cancel{8(0) + 4y = 16} \\ 4y = 16 \\ \hline 4 \end{array}$$

$$y = -4$$

$$(0, -4)$$

$$\begin{array}{r} y = 4 \\ (0, 4) \end{array}$$

$$\cancel{8x - 4(0) = 16}$$

$$\begin{array}{r} \cancel{8x = 16} \\ 8 \end{array}$$

$$x = 2$$

$$(2, 0)$$

$$\cancel{8x + 4(0) = 16}$$

$$\begin{array}{r} \cancel{8x = 16} \\ 8 \end{array}$$

$$x = 2$$

$$(2, 0)$$

$$2x + 7y = 3$$

$$x = -4(-3)$$

$$x = -4y$$

$$x = 12$$

$$2(-4y) + 7y = 3$$

$$-8y + 7y = 3$$

$$\textcircled{-1} \cdot -y = 3 \textcircled{-1}$$

$$y = -3$$

$$\boxed{(12, -3)}$$

$$6x - 5y = -32$$

$$-7x + 8y = 46$$

$$7(6x - 5y) = -32 \quad (7)$$

$$6(-7x + 8y) = 46 \quad (6)$$

$$6x - 5(4) = -32$$

$$\begin{array}{r} 6x - 20 = -32 \\ +20 \quad +20 \end{array}$$

$$\begin{array}{r} 6x = -12 \\ \hline 6 \quad \quad \quad 6 \end{array}$$

$$42x - 35y = -224$$

$$-42x + 48y = 276$$

$$\begin{array}{r} 13y = 52 \\ \hline 13 \quad \quad \quad 13 \end{array}$$

$$x = -2$$

$$\boxed{(-2, 4)}$$

$$y = 4$$

$$5x - 4y = -10$$

$$y = 2(10) - 5$$

$$y = 2x - 5$$

$$y = 20 - 5$$

$$5x - 4(2x - 5) = -10$$

$$y = 15$$

$$5x - 8x + 20 = -10$$

$$\begin{array}{r} -3x + 20 = -10 \\ -3x \quad -20 \end{array}$$

$$(10, 15)$$

$$\begin{array}{r} -3x = -30 \\ \cancel{-3} \quad \cancel{-3} \\ \hline -3 \end{array}$$

$$x = 10$$

$$-4y + 11x - 67 = 0$$

$$2(2y + 5x - 19) = 0 \cdot 2$$

$$2y + 5x - 19 = 0$$

• 2

2:

$$4y + 10x - 38 = 0$$

$$-4y + 11x - 67 = 0$$

$$21x - 105 = 0$$

$$+105 \quad +105$$

$$21x = 105$$

$$x = 5$$

$$-4y + 55 - 67 = 0$$

$$-4y - 12 = 0$$

$$+12 \quad +12$$

$$\begin{array}{r} -4y = 12 \\ \hline -4 \end{array}$$

$$\boxed{5, -3}$$

$$y = -3$$

## Quiz 2

$$y = 9x - 5$$

$$y = 9x + 6$$

$$y = 9x - 5$$

$$-y = -9x - 6$$

$$0 = -11$$

No Solutions

$$6x - y = -1$$

$$6x + y = -1$$

-1.

$$\begin{array}{r} 6x - y = -1 \\ -6x - y = 1 \end{array}$$

$$\begin{array}{r} -2y = 0 \\ \hline -2 \end{array}$$

$$y = 0$$

$$y = 6x + 5$$

$$y = 6x + 5$$

-1

$$-y = -6x - 5$$

$$y = 6x + 5$$

$$0 = 0$$

$$\begin{array}{r} y = -7x + 8 \\ y = -7x - 8 \end{array}$$

-1. -1.

$$\begin{array}{r} y = 4x - 8 \\ -4y = -4x + 8 \\ \hline -3y = 0 \\ \hline -3 \end{array}$$

$$y = 0$$

infinite

$$y = 4x - 8$$

$$4y = 4x - 8$$

-1. -1.

$$\begin{array}{r} y = 4x - 8 \\ -4y = -4x + 8 \\ \hline -3y = 0 \\ \hline -3 \end{array}$$

$$y = 0$$

# Unit Test

$$y = 5$$

$$-10x + 3y = 5$$

$$x = (5) - 4$$

$$x = y - 4$$

$$x = 1$$

$$-10(y - 4) + 3y = 5$$

$$(1, 5)$$

$$-10y + 40 + 3y = 5$$

$$\begin{array}{r} -7y + 40 = 5 \\ -40 \quad -40 \\ \hline -7y = -35 \end{array}$$

$$\begin{array}{r} \cancel{-7} \\ \hline \cancel{-7} \end{array}$$

$$y = 5$$

$$\left\{ \begin{array}{l} y = -2x + 4 \\ 7y = -14x + 28 \\ -7y = -7(-2x + 4) \\ -7y = 14x - 28 \\ 7y = -14x + 28 \end{array} \right.$$

$$0 = 0$$

$$3x - 4y = 8 \quad -6(3x - 4y) = -6(8)$$

$$18x - 5y = 10 \quad -18x + 24y = -48$$

$$\underline{18x - 5y = 10}$$

$$3x - 4(-2) = 8 \quad \underline{19y = -38}$$

$$3x + 8 = 8 \quad \underline{19} \quad \underline{19}$$

$$\cancel{-8} \quad -8$$

$$\frac{3x}{3} = \frac{0}{3}$$

$$x = 0$$

$$y = -2$$

$$\boxed{(0, -2)}$$

$$y = -2x + 7$$

$$y = \cancel{-2(0)} + 7$$

$$y = 7 \quad (0, 7)$$

$$\begin{matrix} (-) \\ -7 \end{matrix} = \begin{matrix} -2x \\ -7 \end{matrix} + \begin{matrix} 7 \\ -7 \end{matrix}$$

$$\frac{-8}{-2} = \frac{-2x}{-2}$$

$$4 = x$$

$$(4, -)$$

$$y = 5x - 7$$

$$y = \cancel{5(0)} - 7$$

$$y = -7$$

$$(0, -7)$$

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

$$+7 \qquad +7$$

$$\frac{10}{5} = \frac{5x}{5}$$

$$2 = x \quad (2, 3)$$

$$-2x + 9y = 11$$

$$-5x + 2y = -34$$

$$5(-2x + 9y) = 5(11)$$

$$-2(-5x + 2y) = -2(-34)$$

$$-2x + 9(3) = 11$$

$$\cancel{-2x} + \cancel{27} = 11$$

$$\cancel{-27} \quad -27$$

$$\cancel{-8}x = -16$$

$$\cancel{-2} \quad \underline{-2}$$

$$10x + 45y = 55$$

$$10x - 4y = 68$$

$$\begin{array}{r} 45y = 123 \\ \hline 41 \end{array}$$

$$y = 3$$

$$x = 8$$

$$8, 3$$

$$5x - y = 2$$

$$5x - y = -2$$

$$5x + y = 2$$

$$-5x + y = 2$$

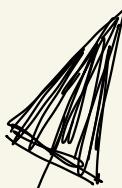
$$\boxed{0 = 4}$$

No sol.

$$-4x + 3y = -2$$

$$y = x - 1$$

$$y = x - 1$$



$$-4x + 3(x - 1) = -2$$

$$y = (-1) - 1$$

$$-4x + 3x - 3 = -2$$

$$y = -2$$

$$-x - 3 = -2$$

$$(-1, -2)$$

$$+3 \quad +3$$

$$\begin{array}{rcl} -x & = & 1 \\ 0 - 1 & & 0 - 1 \end{array}$$

$$x = -1$$

$$y = -2x - 5$$

$$y = \cancel{-2(0)} - 5$$

$$y = -5 \\ (0, -5)$$

$$l = -2x - 5 \\ +5 \quad \cancel{+5}$$

$$\frac{6}{-2} = \cancel{-2x} \quad \cancel{-8}$$

$$-3 = x \\ (-3, 1)$$

$$y = 2x - 2$$

$$y = \cancel{2(0)} - 2$$

$$y = -2 \quad (0, -2)$$

$$(0) = 2x - \cancel{2} \\ +2 \quad \quad \quad \cancel{+2}$$

$$\frac{2}{2} = \frac{2x}{2}$$

$$1 = x \\ (1, 0)$$

$$9x - 4y = -7$$

$$7x - 12y = 39$$

$$-3(9x - 4y) = -7(-3)$$

$$\cancel{-27x + 12y} = 21$$

$$\begin{array}{r} \cancel{7x - 12y} = 39 \\ \hline \end{array}$$

$$9(-3) - 4y = -7$$

$$\begin{array}{r} -27 - 4y = -7 \\ +27 \end{array}$$

$$\begin{array}{r} -4y = 20 \\ \hline -4 \end{array}$$

$$y = -5$$

$$\begin{array}{r} -20x \\ \hline -20 \end{array} = 60$$

$$x = -3$$

