> TODAY'S AGENDA:

- Continue working on Khan Academy
- Mission: Engage NY Module 4
  > Systems of Equations with Elimination

- Today's Objective:
  > Students will be able to graph a line, given the equation of the line in Slope-Intercept Form

- Today's Standards:
  > HSA.REI.C.6

Solutions to System of Equations

- What is a ***System of Equations***?
  - A System of Equations is a group of two or more equations.

- What is the Solution to a System of Equations?
  - The solution is the point(s) (as coordinates in (x,y) form) that make the equations true.

Systems of Equations with Elimination

Get rid of

Solve the system of equations.

$2y - 3x = -27$

$5y + 3x = 6$

$x =$ 1/3

$y =$ -3

$2y - 3x = -27$

$5y + 3x = 6$

$7y = -21$

$\frac{7y}{7} = \frac{-21}{7}$

$y = -3$

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

$-6 - 3x = -7$

$+6 \quad +6$

$-3x = -1$

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

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

Solve the system of equations.

$-3y - 4x = -11$

$3y - 5x = -61$

$x =$ 8

$y =$ −7

$-3y - 4x = -11$

$+\ 3y - 5x = -61$

$-9x = -72$

$\frac{-9x}{-9} = \frac{-72}{-9}$

$x = 8$

$3y - 5(8) = -61$

$3y - 40 = -61$

$+40 \quad +40$

$3y = -21$

$\frac{3y}{3} = \frac{-21}{3}$

$y = -7$

Solve the system of equations.

$2y + 7x = -5$

$5y - 7x = 12$

$x =$ -1

$y =$ 1

$2y + 7x = -5$

$5y - 7x = 12$

$12y = 7$

$y = 1$

$2(1) + 7x = -5$

$2 + 7x = -5$

$-2 \quad -2$

$7x = -7$

$x = -1$

Solve the system of equations.

$-7y - 4x = 1$

$7y - 2x = 53$

$x =$ -9

$y =$ 5

$-7y - 4x = 1$

$7y - 2x = 53$

$-6x = 54$

$\frac{-6x}{-6} = \frac{54}{-6}$

$x = -9$

$7y - 2(-9) = 53$

$7y + 18 = 53$

$-18 \quad -18$

$7y = 35$

$\frac{7y}{7} = \frac{35}{7}$

$y = 5$