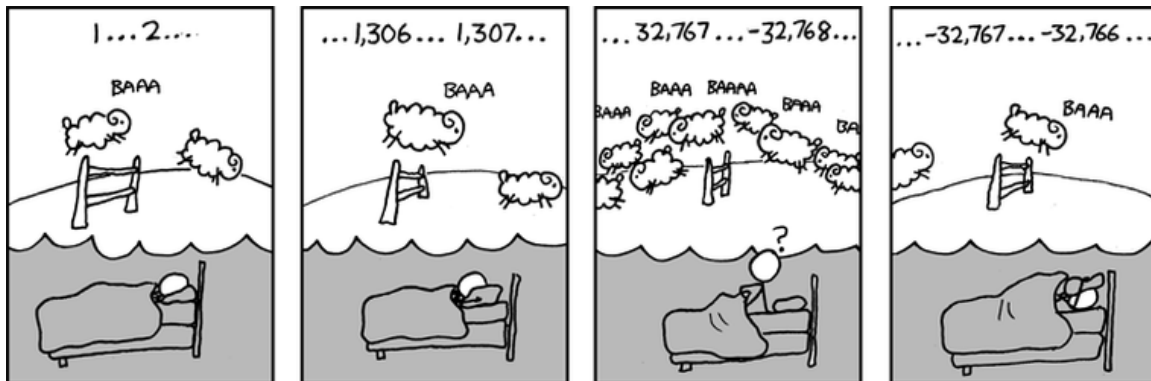


# Algebra 1

(1/8-1/26)



"Pure mathematics is, in its way, the poetry of logical ideas."  
-Albert Einstein

## Overview:

I hope you had a wonderful winter break! Between now and January 26<sup>th</sup>, we will continue writing linear equations from graphs, applying these skills to analyze parallel and perpendicular lines. From there, we will explore the method of regression and how to extrapolate information from scatter plots.

## Changes in Homework Policy:

1. The problem set portion of the individual work will be due each Monday. They must be submitted on loose paper, with all relevant work for the sections stapled together.
2. Vocabulary will be due the day of assessments (roughly every other Friday).

**Lessons:**

- \_\_\_ 5.4: Write Linear Equations in Standard Form
- \_\_\_ 5.5: Write Equations of Parallel and Perpendicular Lines
- \_\_\_ 5.6: Fit a Line to Data
- \_\_\_ 5.7: Predict with Linear Models

**Guiding question 7:****How can we use linear equations to model and extrapolate data?**

- \_\_\_ 1) **Review Week:** Welcome back! We will be taking this first week to regain math intuition that we may have lost during the break:
- \_\_\_ a. Desmos: Graphing Stories – Watch videos of different scenarios and draw functions which explain them. **CODE: 9URDU**
  - or-
  - \_\_\_ b. Desmos: Marble Slides (Lines) – Transform lines to send the marbles through the stars. **CODE: 7V6XY**

See classroom for more details about desmos. **DUE: Fri, 1/12**

- \_\_\_ 2) **Vocabulary: Standard Form, Converse, Perpendicular Lines, Parallel Lines, Scatter Plot, Correlation, Line of Fit, Linear Regression, Interpolation, Extrapolation** (do one of the below).
- a. Complete a vocabulary organizer (ask me for one).
  - a. Create a mind-map with connections, a story, or a drawing with captions that shows the connections between the above terms.
  - b. Create vocabulary cards of the above terms. Be sure to include an example for each!

**DUE: Friday, 1/26**

- \_\_\_ 3) **Problem Sets:** You will find the problems in the textbooks located in the classroom **OR** in the pdf form on Google Classroom. You must complete the whole set for full credit!
- \_\_\_ a. 5.4: Write Linear Equations in Standard Form (p.314 #'s 5-27 odds) **DUE: Mon, 1/22**
  - \_\_\_ b. 5.5: Write Equations, Parallel & Perpendicular Lines (p.319 #'s 3-23 odds)
  - \_\_\_ c. 5.6: Fit a Line to Data (p.328 #'s 3-17 odds) **DUE: Mon, 1/29**
  - \_\_\_ d. 5.7: Predict with Linear Models (p.338 3-11 odds)

- \_\_\_ 4) **Model Data from the Internet:** Create a scatter plot using a data set and create a model for the line. See google classroom for more details (will be posted Friday, January 19<sup>th</sup>)  
**DUE: Mon, 1/29**

- \_\_\_ 5) **ASSESSMENT: Slope-Intercept Form** (Friday, January 26<sup>th</sup>)