

## Algebra 1 Playlist: Interpreting the Slope and Intercept of a Linear Model

Aligns with *CCSS.MATH.CONTENT.HS.S-ID.7*: Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.

### Related Standards

- S-ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
- S-ID.6a Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.
- S-ID.6c Fit a linear function for a scatter plot that suggests a linear association.

PREVIEW



## Objectives

In this module, you will learn and practice the following skills:

- Interpret the slope of a linear regression in the context of the data.
- Interpret the intercept of a linear regression in the context of the data.

Let's get started!

## Key Terms

- The **slope** of a linear equation is the constant rate at which the line increases or decreases.
- The **intercept** of a linear equation is the value at which the line crosses the  $y$ -axis.

## Connections

- <http://cnx.org/contents/30189442-6998-4686-ac05-ed152b91b9de@16.2:64/The-Regression-Equation> ("Understanding Slope")
- <http://cnx.org/contents/327a14ee-95f6-4c2d-b9a5-3943b4077d36@15.10:12/Lines>



## Interpreting the Slope and Intercept of a Linear Model

(HS.S-ID.7)

The **slope** of a linear equation is the constant rate at which the line increases or decreases. The **intercept** of a linear equation is the value at which the line crosses the  $y$ -axis.

If your students...

**Interpret the slope and intercept as what *will* happen, instead of an estimate of what is *expected* to happen**

WATCH: Distinguish between scatterplots and lines

[https://learnzillion.com/lesson\\_plans/7055-distinguish-between-scatterplots-and-lines#fndtn-lesson](https://learnzillion.com/lesson_plans/7055-distinguish-between-scatterplots-and-lines#fndtn-lesson)

**Switch the slope and  $y$ -intercept**

WATCH: Identify the parts of a linear model

[https://learnzillion.com/lesson\\_plans/6258-identify-the-parts-of-a-linear-model#fndtn-lesson](https://learnzillion.com/lesson_plans/6258-identify-the-parts-of-a-linear-model#fndtn-lesson)

**For extra practice with identifying slope and  $y$ -intercept:**

PLAY: Rags to Riches

<http://www.quia.com/rr/379720.html>

