

Algebra 1 Playlist: Correlation and Causation

Aligns with *CCSS.MATH.CONTENT.HS.S-ID.9*: Distinguish between correlation and causation.

Related Standards

- S-ID.6 - Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
- S-ID.8 - Compute (using technology) and interpret the correlation coefficient of a linear fit.

PREVIEW



Objectives

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

- Distinguish between correlation and causation.
- Think of reasons besides correlation that might explain why two variables are related.

Let's get started!

Key Terms

- **Causation** is the term we use when we think the independent variable is directly affecting the dependent variable.
- **Correlation** refers to the strength of the relationship between two variables.
- The **correlation coefficient** is a numerical value between -1 and 1 that describes the strength of a linear relationship.
- A **lurking variable** is another factor that affects both variables.

Connections

- http://www.ck12.org/earth-science/Correlation-and-Causation/lesson/Correlation-and-Causation/?referrer=concept_details



Correlation and Causation

(HS.S-ID.9)

Causation is the term we use when we think the independent variable is directly affecting the dependent variable. **Correlation** refers to the strength of the relationship between two variables. The **correlation coefficient** is a numerical value between -1 and 1 that describes the strength of a linear relationship. A **lurking variable** is another factor that could explain why two variables are related.

If your students...

Write about correlation in a way that implies causation.

WATCH: Interpreting Correlation

https://learnzillion.com/lesson_plans/6753-evaluate-language-that-confuses-correlation-and-causation#fndtn-lesson

Don't think a correlation could show causation.

WATCH: Smoking and Lung Cancer

<https://www.youtube.com/watch?t=132&v=V3lq0k82qi4>

For extra practice with correlation and causation:

WATCH: Video with multiple examples

<http://www.curriki.org/oer/?rid=89033>

