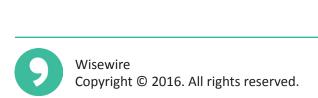
High School Algebra Playlist: Calculating Average Rate of Change

Aligns with <u>CCSS.Math.Content.HSF.IF.B.6</u>: Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

Related Standards

- <u>CCSS.Math.Content.HSF.IF.A.1</u>: Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).
- CCSS.Math.Content.HSF.IF.B.4: For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.



Objectives

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

- calculate the rate of change of a function over a specified interval
- estimate a rate of change

Let's get started!

Key Terms

- A function is a relation which has each input related to exactly one output.
- The **slope** of a line is its rate of change.

Connections

• https://openstaxcollege.org/textbooks/algebra-and-trigonometry; section 3.3.1



Calculating Average Rate of Change

(CCSS.Math.Content.HSF.IF.B.6)

A **function** is a relation which has each input related to exactly one output. The **slope** of a line is its rate of change.

If your students...

Miscalculate slope:

Students often have trouble calculating slope, typically mixing up the *x* and *y* values. Remind students that slope is rise over run and that slope is constant throughout a line.

WATCH: Find the slope of a linear function

https://learnzillion.com/lesson_plans/6660#fndtn-lesson

