



### Constant Rate of Change

#### Today's Standard

HSF.LE.A1b - Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

Cues	Notes
What is a constant rate of change?	A constant rate of change means that for every unit increase in one quantity, the other quantity increases by a fixed amount.
Examples of constant rate of change	Examples include speed (distance per time), cost per item, and simple interest.
Difference between linear and nonlinear functions	Linear functions have a constant rate of change and are represented by straight lines. Nonlinear functions have variable rates of change and are represented by curves.
Why can't all situations be modeled linearly?	Some real-world situations, like population growth or radioactive decay, follow exponential models rather than linear ones.
How to identify linear relationships in data	To identify linear relationships, look for a consistent rate of change in data tables or straight lines in graphs.

#### Summary

Understanding constant rates of change is essential for recognizing linear relationships in various contexts. Not all scenarios can be modeled linearly, and distinguishing between linear and nonlinear functions is crucial.