Exponential Growth and Decay

Today's Standard

HSF.LE.A1c - Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

Cues	Notes
Exponential growth	Exponential growth: Quantity increases by a constant percentage rate.
Exponential decay	Exponential decay: Quantity decreases by a constant percentage rate.
Constant percentage rate	Constant percentage rate: Key feature distinguishing exponential from linear models.
Real-world examples	
Difference from linear models	Real-world examples: Population growth, radioactive decay, financial interest rates.
	Difference from linear models: Linear models increase/decrease by a constant amount.

Summary

Exponential growth and decay involve quantities changing by a constant percentage rate, unlike linear models which change by a constant amount. These concepts are crucial for understanding many real-world phenomena.