

Growing, Growing, Growing Overview

Investigation One - Exponential Growth

A.RP.08.01f

Identify and represent other simple functions including exponentials

($y = ax$, $a > 0$)

A.PA.08.03b

Represent basic functions using tables, graphs, and formulas

Investigation Two - Examining Growth Patterns

N.ME.08.02a

Understand the meanings for zero exponents

A.PA.08.02

For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect the others

Investigation Three - Growth Factors and Growth Rates

N.MR.08.07

Understand percent increase and percent decrease in both sum and product forms, e.g., 3% increase of a quantity x is $x + .03x = 1.03x$

N.MR.08.08

Solve problems involving percent increases and decreases

N.FL.08.09a

Solve problems involving compounded interest

Investigation Four - Exponential Decay

N.FL.08.09b

Solve problems using multiple discounts

Investigation Five - Patterns with Exponents

N.ME.08.02b

Understand the meanings for negative exponents

A.RP.08.01e

Identify and represent other simple functions including roots ($y = \sqrt{x}$) using tables, graphs, and equations