

Expectation

1.4 The student will model, analyze, and apply exponential functions.

Essential Question

How do exponential functions model real-world problems and their solutions?

Enduring Understanding

The characteristics of exponential functions and their representations are useful in solving real-world problems.

Indicators

- 1.4.B.1 represent exponential functions numerically, algebraically, and graphically.
- 1.4.B.2 identify properties of exponential functions.
- 1.4.B.3 represent translations of exponential functions numerically, algebraically, and graphically.
- 1.4.B.4 apply exponential functions to real-world problems.
- 1.4.B.5 analyze patterns of change in data to determine if an exponential relationship appropriately models the data.
- 1.4.B.6 model data using exponential functions.
- 1.4.B.7 solve exponential equations algebraically and graphically.

Vocabulary

decay factor
decay rate
doubling time
growth factor
growth rate
half-life