**Module 1**

**Modeling Content, Language, & Social Objective**

**F-BF: Build a function that models a relationship between two quantities**.

1: Write a function that describes a relationship between two quantities.\* a. Determine an explicit expression, a recursive process, or steps for calculation from a context.

**F-LE: Linear, Quadratic, and Exponential Models\* (Secondary I focus on linear and exponential only) Construct and compare linear, quadratic and exponential models and solve problems.**

1. Distinguish between situations that can be modeled with linear functions and with exponential functions.

a. Prove that linear functions grow by equal differences over equal intervals and that exponential functions grow by equal factors over equal intervals.

b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

2. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). Interpret expression for functions in terms of the situation they model.

5. Interpret the parameters in a linear or exponential function in terms of a context. This task also follows the structure suggested in the Modeling standard:

**Standards for Mathematical Practice of Focus in the Task:**

**SMP1: Make sense of problems and persevere in solving them.**

**SMP6: Attend to precision.**

**SMP7: Look for and make use of structure.**

**Content Objective**

1. Write a function that describes a relationship between two quantities.\*
2. a. Determine an explicit expression, a recursive process, or steps for calculation from a context

**Language Objective**

**Social Objective:**

Pair-Share

Group Discussion

Classroom Discussion