Packet 7: Exploring Functions

Dear Parents/Guardians,

Packet 7 continues the work with functions in previous packets. Students formally define functions and determine when a set of ordered pairs is a graph of a function. Students solve problems involving rates, representing situations in words and as sketches, tables of numbers, and graphs. Students determine the better buy between items using multiple representations. This lesson includes many important ideas in the function and ratio and proportional relationships domains.

Functions and Non-Functions

A <u>function</u> is a rule that assigns each input value exactly one output value. Here are three representations commonly studied when determining if a given set of ordered pairs shows a relationship that is a function. (The highlighted green indicates why the relationship given is not a function.)
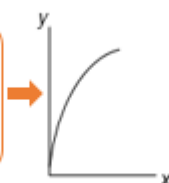

Rate Graphs

Students will consider what happens when water is poured at a constant rate into containers of various shapes. They will represent the rates of change graphically and in words.

By the end of the packet, your student should know…

The definition of a function, the representations that are used for functions, and whether a set is a function Lesson 7.1 and 7.2

How to represent situations as a table of numbers, in words, and graphically Lesson 7.2

Use tables, graphs, rules, and verbal descriptions to solve problems that involve proportional relationships Lesson 7.3

Additional Resources

Resource Guide (RG)
Part 1, pages 44-45

Students will represent tables of numbers as graphs (and vice versa). They will determine whether the data set is a function.