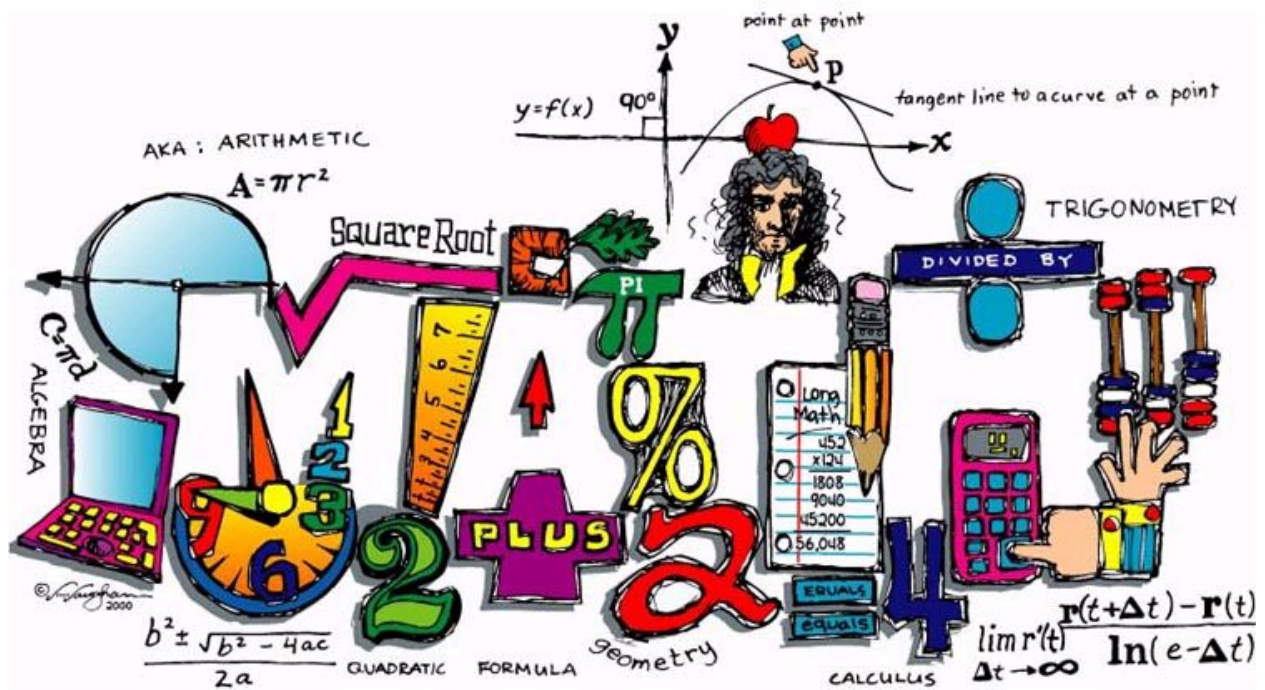


Junior/Senior Math Quarter One Study Guide #1

Functions and Their Graphs



Overview

In this study guide, you will be introduced to the concept of a function. As you proceed through the lessons, you will see that functions play a primary role in modeling real-life situations. There are three basic types of functions that have proven to be the most important in modeling real-life situations. These functions are algebraic functions, exponential and logarithmic functions, and trigonometric functions. You will study these three types of functions in detail.

Guiding Question

What are the real-life applications of functions and their graphs?

Lessons

- Lines in the Plane
- Functions
- Graphs of Functions
- Shifting, Reflecting, and Stretching Graphs
- Combinations of Functions
- Inverse Functions
- Linear Models and Scatter Plots

Individual Work

_____ Warm Up: Completion should take no longer than 10 minutes after class begins.

_____ Class Notes:

Keeping class notes in your notebook is important. I will post all lecture slides on google classroom. Taking notes during lessons is highly suggested, however, you definitely can complete your notes after lessons.

_____ Class work: It is the reference of your individual assignments. Please follow my directions and show detailed steps.

_____ Exit ticket: Completed during the last 10 minutes of class

_____ Individual assignments: Announced in class and assigned on google classroom.

Group Project

Functions have many real-life applications. In groups, review and research functions which we learn in this study guide and their applications. A group presentation is required. We will discuss the details in class.

Assessment

Quiz, Test and Presentation