

During the 3rd quarter, you will be developing a product that utilizes 5 different types of functions--1 each of **quadratic**, **absolute value**, **exponential**, **logarithmic**, and **radical** functions. Your final product will answer the following questions:

- How do algebraic functions behave?
- What are the differences between different types of algebraic functions, and why are these differences important?
- How can different functions be analyzed?
 - What are their key features?
 - How are these key features represented mathematically?
- How can algebraic functions be used to represent real-world or theoretical scenarios in other subject areas?

This project will have five parts (one for each function). Each will be marked for completion, and your grade for the quarter will be determined by this project's mastery rubric. Parts marked "incomplete" can be resubmitted with revisions as many times as needed during the third quarter. It is ***strongly advised*** that you do not turn in a final submission until all parts are marked as "complete."

Your final product should be in the form of one of the following:

- A paper with at least 1 page dedicated to each type of function (you will likely find that you need more)
- A binder/portfolio with 1 section dedicated to each type of function
- A slide presentation, presented to the whole class or the teacher, with at least 3 slides dedicated to each type of function.
- A pre-approved alternative option