# 13 Topic: Relations & Functions Copied from: All Algebra 2, Copied on: 02/28/22

Content Area: **Mathematics**
Course(s): **Algebra 2**
Time Period: **Marking Period 3**
Length: **2-3weeks**
Status: **Published**

## Standards

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|---|---|
| MA.F-IF.A.1 | Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If $f$ is a function and $x$ is an element of its domain, then $f(x)$ denotes the output of $f$ corresponding to the input $x$. The graph of $f$ is the graph of the equation $y = f(x)$. |
| MA.F-IF.A.2 | Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. |
| MA.F-IF.B.4 | For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. |
| MA.F-IF.B.5 | Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. |

## Enduring Understandings

1. Mathematics is a language consisting of symbols and rules.
2. The same mathematical ideas can be represented concretely or symbolically.
3. There can be different strategies to solve a problem, but some are more effective and efficient than others.

## Essential Questions

How will the student tell if a relation is a function?
How will the student find the domain and range?
How will the student perform operations with functions?
How will the student find the inverse of a function?
How will the student find the zeros and domains of rational functions?
How will students graph functions and their inverses?

## Knowledge and Skills

Understand Domain

Understand Range

Understand Relation

Understand Function

Understand Inverse

Find the Value of a function

FInd the Relation/Function Composition

Understand Roster Definition of relation/function

Map a relation/function

Understand F(x) definition of a function

Determine the Domain of a Relation or Function

Determine the Range of a Relation or Function

Determine if a relation is a Function

Find the Inverse relation/function

Evaluate a relation/function

Graph Functions

## Transfer Goals

Using mathematical reasoning and strategic thinking can allow for practical solutions ot many problems.

Often unique vocabulary and implementation methods are needed to solve problems.

## Resources

1. McDougal/Littell - Algebra & Trigonometry Structure & Method Book 2

2. Aufmann/Barker/Lockwood - Intermediate Algebra with Applications Sixth Edition

3. Houghton/Mifflin/Harcourt - On Core Mathematics Algebra 2

4. Holt - Algebra 2 with Trigonometry

5. Larson/Boswell - Big Ideas Math:  Algebra 2 Texas Edition

6. Khan Academy

7. PurpleMath

8. KutaSoftware

9. CK-12

10. Quizlet

11. Albert I/O

12. Desmos

13. Problem Attic