13 Topic: Relations & Functions

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

Standards

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