**Major Work of Math I**

| **High School****Math I**  |
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| **Major Clusters** | **Supporting/Additional Clusters** |
| **The Real Number System*** Extend the properties of exponents to rational exponents.

**Quantities*** Reason quantitatively and use units to solve problems.

**Seeing Structure in Expressions*** Interpret the structure of expressions
* Write expressions in equivalent forms to solve problems.

**Creating Equations*** Create equations that describe numbers or relationships.

**Reasoning with Equations and Inequalities*** Understand solving equations as a process of reasoning and explain the reasoning.
* Represent and solve equations and inequalities graphically

**Interpreting Functions*** Understand the concept of a function and use function notation.
* Interpret functions that arise in applications in terms of the context.
* Analyze functions using different representations.

**Building Functions*** Build a function that models a relationship between two quantities.

**Linear, Quadratic, and Exponential Models** * Construct and compare linear and exponential models and solve problems.
* Interpret expressions for functions in terms of the situation they model.

**Expressing Geometric Properties with Equations** * Use coordinates to prove simple geometric theorems algebraically.

**Interpreting Categorical and Quantitative Data** * Summarize, represent, and interpret data on a single count or measurement variable.
* Summarize, represent, and interpret data on two categorical and quantitative variables.
 | **Arithmetic with Polynomials and Rational Expressions** * Perform arithmetic operations on polynomials

**Reasoning with Equations and Inequalities*** Solve equations and inequalities in one variable.
* Solve systems of equations.

**Building Functions*** Build new functions from existing functions.

 **Congruence*** Experiment with transformations in the plane.

**Geometric Measurement and Dimension*** Explain volume formulas and use them to solve problems.

**Interpreting Categorical and Quantitative Data** * Interpret linear models.

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