Integrated Math 1 Readiness

**Any Grade Level after Math B Essentials or Math B
(10 Credits)**

- *Meets high school graduation requirement for math credits*

General Information

Description

In **Integrated Math 1 Readiness**, students will learn concepts to prepare them for Integrated Math 1 such as:

- Solving and understanding equations and inequalities
- Working with functions and understand their relationships as well as modeling with functions
- Solve linear equations and systems of equations using various methods.
- Understanding how figures behave under translations, reflections, dilations, and rotations.
- Using transformations to understand congruence and similarity, describe and analyze two-dimensional figures, and to solve problems.
- Solving problems about lines, angles, triangles, and quadrilaterals.
- Using a coordinate system to verify geometric relationships.
- Representing and analyzing quantitative relationships between dependent and independent variables.
- Develop understanding of statistical variability.
- Summarizing and describing numerical data sets and distributions, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data was collected

As in all math courses offered at SDUHSD, students are aware of and make use of all **Standards for Mathematical Practices:**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

This course is a below grade level course which will have an individualized remediation component. Throughout the course, students will be expected to work collaboratively while problem solving and working on open ended problems.
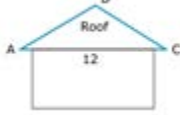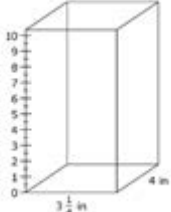
Expectations and Goals

This course is designed for students who have had exposure to, but not mastered the entire math B content standards. This course is designed for students who need additional support BEFORE enrolling in Integrated Math 1. This course is for:

- Any student who took Math B Essentials
- Any student who did not master the concepts in Math B (a "D" or "F" in Math B)

Students entering Integrated Math 1 Readiness should already have been exposed to the following concepts:
- Connecting ratio and rate to whole number multiplication and division
- Using concepts of ratio and rate to solve problems.
- Performing operations with positive and negative rational numbers.
- Understanding the use of variables in mathematical expressions and equations.
- Writing, interpreting, and using expressions, equations, and inequalities that correspond to given situations and solve problems.
- Finding common factors and multiples.
- Having a basic understanding of measure of central tendency for data sets.
- Solving real-world problems involving area, surface area, and volume.

Students entering Integrated Math 1 Readiness should also be able to solve problems such as

Ratio Problem	Coordinate
A landscape designer is planning the layout of trees in a park. There are two types of trees: elm and pine. There should be at least 16 total trees but no more than 30. The ratio of elm trees to pine trees will be 3:2. Draw a model to show a possible number of each type of tree.	Jose is transferring this drawing of a triangular roof to a coordinate plane. He plots point A at (-5, 2) and point B at (1, 6). The length of the base of the roof is 12 units. What are the coordinates of point C?
Operations with Numbers Problem Sarah claims that any fraction multiplied by $\frac{2}{3}$ will always be less than $\frac{2}{3}$. A. Give an example to support Sarah's claim. B. Give an example that does not support Sarah's claim.	Area Problem The area of a piece of land that is in the shape of a triangle is $\frac{1}{6}$ square mile. One dimension of the piece of land is $\frac{2}{3}$ mile. What is the other dimension of the land?
Problem Tanya fills the prism shown with $110\frac{1}{2} in^3$ of liquid. What is the height of the liquid in the prism?	Statistics Problem Several questions are shown. Which question(s) expects variability in the data related to it? A. How old is the athlete? B. How many pets does each 6th grader have? C. How many 6th graders attend our school? D. How old are the animals at the zoo? E. How many baseball cards does the boy have?

Estimated Homework

Students should expect ½ hour to an 1 hour of homework for every class period. (This is a general guideline for planning and scheduling purposes. A student's individual ability level and competency may affect the actual preparation times needed.)

This Class Is Best For...

This course is for students that struggled in middle school math. This course would be taken before Integrated Math 1 which is a graduation requirement. This course is a below grade level course which will have an individualized remediation component. Throughout the course, students will be expected to work collaboratively while problem solving and working on open ended problems.

Course Materials

Required Materials

Modules are adapted from The Mathematics Vision Project (see link below) using Common
Core State Standards

Internet resources

- Course overviews, modules, standards sequencing, student help and more...

    https://sites.google.com/a/sduhsd.net/student-curriculum/