

Mr. Zeihen: RMHS

**Getting To Know The Textbook:** We are using Carnegie’s Integrated Math II consumable textbook. This means that students will engage in the material by tearing out and working on written activities and by working online using Mathia. The book is broken down into 5 modules. Each module has 3 topics. Within each topic there are anywhere between 2 and 6 lessons. Each lesson will typically have a warm up, multiple activities, and then a homework section. Mathia this year will also have 5 modules that align directly to the modules in our textbook.

**Welcome To Standard Based Grading:** This year I have moved to standard based grading. What this means is that the student will be judged highly on the level of mastery they achieve on each essential outcome. An essential outcome is a learning goal or skill that the student needs to master in order to be successful in the next level of mathematics.

Each essential outcome will be judged on assessments with mastery levels at a 5, 4, 3, 2, 1, or 0 as defined below:

5	Advanced Master
4	Mastery
3	Basic Mastery
2	Heading Towards Mastery
1	No master
0	No honest attempt to show mastery level

Instead of the gradebook being broken into sections like quizzes, tests, class participation, homework, etc. It will consist of the essential outcomes/standards with percentages based on the importance of those essential outcomes, and then one section called formative work. Formative work will be broken into your Mathia Workspace scores, classwork, projects or other explorations that will help you prepare for that particular standard. Retakes will be allowed based partly on the completion of your formative work at a high percentage. To earn further retakes on an essential skill, the student may be required to complete other work.

Some students can master skills by doing less, while others need to do everything to wrap their brain around a concept. The Formative work grade allows a student to decide how much they need to do, in order to earn success; an important skill they will need to learn to succeed not just in high school, but in order to be successful in the real world, too.

*Please note that the percentages for each essential outcome are best estimate and may be modified to take into account the actual pacing of the class to best meet the needs of my students.*

**Why Standards Based Grading:** In the most simple of answers, because it is best for students. Instead of getting credit based on effort, student earn grades based on how well they have mastered an essential outcome. If students do not like their grade, they can look at what essential outcomes they have not mastered and take advantage of a retake or a good metacognition grade to raise that mastery in the future. This type of grading not only holds students accountable for what they know, but changes the conversation from “How can I raise my grade?” to “I see that I am having problems mastering this essential outcome, can you please help me understand so that I can improve my mastery level?” Conversations like these will help students take ownership of their own learning and better facilitate communication between students, parents, and myself in regards to content areas of strength and weakness.

## Standards Grade Break Down:

<b>Circles: G.C. 15%</b>		
<b>Skill number</b>		<b>Percentage/Weight</b>
<b>Identify relationships in circles</b>		
1	Inscribed angles, Central Angles, Semicircles	2
2	Radii, Chords	2
3	Circumscribed angles	2
4	Radius is perpendicular to the tangent line at the point of tangency.	2
<b>Prove that all circles are similar (G.C.1)</b>		
5	Prove two circles are similar	1
<b>Construct the inscribed and circumscribed circles of a triangle</b>		
6	Inscribed angles	4
Geometry Circles (Final)		2
<b>Total this Standard</b>		<b>15</b>
<b>Congruence: G.CO. 30%</b>		
<b>Prove Theorems About Lines and Angles :</b>		
7	Vertical angle theorem	2
8	Parallel lines and transversals	2
<b>Prove Theorems About Triangles :</b>		
9	Interior angle theorem	5
10	Isosceles triangle theorem	4
11	Triangle Midsegment theorems	2
12	Medians of a triangle meet at a point	2
13	Know and apply the 45-45-90 Triangle Theorem	4
14	Know and apply the 30-60-90 Triangle Theorem	4
<b>Prove Theorems About Parallelograms :</b>		
15	Parallelograms.congruent opposite sides, opposite angles, diagonals bisect, rectangles have congruent diagonals	2
Geometry Congruence (Final)		3
<b>Total this Standard</b>		<b>30</b>
<b>Similarity in Right Triangles: G.SRT. 40%</b>		
<b>Use the definition of similarity to determine whether two figures are similar</b>		
16	Identify the congruent angles and proportional sides in two similar figures	2
17	Use transformations formations to verify that two figures are similar	2
<b>Use the properties of transformations to prove the A-A similarity postulate</b>		
18	A-A similarity	3
<b>Prove Theorems about Triangles</b>		
19	Prove the triangle proportionality theorem.	2
<b>Use congruence and similarity in triangles to solve problems</b>		
20	Use indirect measurement to solve real world problems.	5
<b>Use similarity to define trigonometric ratios</b>		
21	Identify the sine, cosine, tangent ratios for acute angles	5
22	Identify the angles that satisfy a given trigonometric ratio.	5
<b>Identify the trigonometric ratios of the complement of a given angle</b>		
23	Trig. ratios of complement	2
<b>Use the trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems</b>		
24	Use the Pythagorean theorem to find the missing side	5
25	Use the inverse trigonometric functions to find the missing acute angles.	4
26	Use trigonometric ratios to find missing sides.	5
Geometry Similarity, Right Triangles and Trigonometry (Final)		5
<b>Total this Standard</b>		<b>40</b>
<b>Total ALL Priority Standards</b>		<b>85</b>

The other 15% of the total grade will consist of formative work.