

Expectations and Outcomes

Grade Level/Course: 9-12

Content Area: Math

| Unit Title | Guarantees |
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| Unit 1: Foundations of Geometry (chapter 1) | <ul style="list-style-type: none"> • Identify, name, and draw points, lines, line segments, rays, planes • Identify, name, and draw points, lines, line segments, rays, planes to set up algebra to find measurements. • Use formulas in the coordinate plane to find the midpoint of a line segment and length of a line segment. |
| Unit 2: Geometric Reasoning (chapter 2) | <ul style="list-style-type: none"> • Identify, name, and draw points, lines, line segments, rays, planes • Identify, name, and draw points, lines, line segments, rays, planes to set up algebra to find measurements. • Use formulas in the coordinate plane to find the midpoint of a line segment and length of a line segment. |
| Unit 3: Parallel and Perpendicular lines (chapter 3) | <ul style="list-style-type: none"> • Use theorems by angles formed with parallel lines and a transversal • Use theorems for angle relationships with parallel lines and a transversal or lines that are perpendicular. • Use theorems for parallel and perpendicular lines in relation to an equation of a line. |
| Unit 4: Congruent Triangles (chapter 4) | <ul style="list-style-type: none"> • Use definition for congruent triangles or theorems for minimal information needed (ex sas). • Find both interior and exterior angle measures. |
| Unit 5: Triangle properties (chapter 5) | <ul style="list-style-type: none"> • Use inequalities with one triangle or comparing two triangles • Use the pythagorean theorem and its converse to solve problems. Use pythagorean inequalities to classify triangles. |
| Unit 6: Similar Figures (chapter 7) | <ul style="list-style-type: none"> • Draw and describe similarity transformations in the coordinate plane use properties of similarity transformations to determine whether polygons are similar and to prove circles are similar. |
| Unit 7: Right Triangle Trigonometry (chapter 8) | <ul style="list-style-type: none"> • Use trigonometric ratios to find angle measures in right triangles and to solve real-world problems. • Use the law of sines and the law of cosines to solve triangles. • Use both a trig function and an inverse trig function. |

| Unit Title | Guarantees |
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| Unit 8: Properties of Polygons (chapter 6) | <ul style="list-style-type: none">• Prove and apply properties of parallelograms.• Use properties of parallelograms to solve problems.• Use side and angle information to classify polygons. |
| Unit 9: Three dimensional shapes | <ul style="list-style-type: none">• Calculate the volume and surface area of 3 dimensional shapes. |
| Unit 10: circles | <ul style="list-style-type: none">• Use secants, chords, and inscribed angles of circles to solve problems. |