

# Rising Analytic Geometry Summer Math Packet

Dear Parents,

Rockdale County Public Schools is committed to providing the best math education possible for your child. Due to the cumulative nature of mathematics, in order for your child to be successful in the coming school year, he/she must possess mastery of many concepts from his/her previous math classes. For this reason, we have created a summer math packet to ensure your child is up to date on his/her prerequisite math skills.

1. Complete the practice problems embedded in the summer packet **for the students who will be enrolled in Analytic Geometry during the Fall of 2020**. The use of DESMOS calculator can be found in their ClassLink calculator link on their laptop.



2. Students will submit their answers to the practice problems by clicking a link to a Microsoft Form. Answers will be checked and students will be given automatic feedback to see whether their answer is correct or incorrect.
3. The use of [www.khanacademy.org](https://www.khanacademy.org) can be helpful for students to use. Type in the learning target topic(s) in the search menu. Here, your son/daughter will find tutorials and extra practice problems. Have him/her watch the tutorials and do the extra practice problems. This website will let your child know if he/she is doing the work correctly.

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# Week 1

<b>Prerequisite Skill:</b> Pythagorean Theorem	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can use the Pythagorean Theorem to solve for a missing side of a right triangle.</li><li>✓ I can use the converse of the Pythagorean Theorem to determine if a triangle is a right triangle.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Introduction to the Pythagorean Theorem 1</a> <a href="#">Introduction to the Pythagorean Theorem 2</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Transformations	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can identify transformations displayed.</li><li>✓ I can identify the effect of translations, reflections, rotations, and dilations on figures using coordinates.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Rigid Transformations Introduction</a> <a href="#">Transformation in Math</a> <a href="#">Transformations in Geometry: Translations, Reflections, and Rotations</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

## Week 2

<b>Prerequisite Skill:</b> Basic Triangle Knowledge	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can use the triangle sum theorem to find a missing angle in a triangle.</li><li>✓ I can use isosceles and equilateral triangle properties to solve for missing sides and angles.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Isosceles and Equilateral Triangles</a> <a href="#">Isosceles Triangle Theorems Explained</a> <a href="#">Triangle Sum Theorem</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Square and Cube Roots	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can recognize the relationship between perfect squares and square roots is reciprocal.</li><li>✓ I can recognize the relationship between cubes and cube roots is reciprocal.</li><li>✓ I can identify and simplify perfect square roots and cube roots.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Introduction to Square Roots</a> <a href="#">Understanding Square Roots</a> <a href="#">Introduction to Cube Roots</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

## Week 3

<b>Prerequisite Skill:</b> Multiplying Fractions	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can multiply fractions.</li><li>✓ I can multiply a whole number and a fraction.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Multiplying Fractions</a> <a href="#">Reducing Fractions</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Properties of Exponents	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can use the properties of exponents to simplify, multiply, and divide expressions.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Simplifying Exponents</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

## Week 4

<b>Prerequisite Skill:</b> Plotting Points in the Coordinate Plane	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can write down coordinates in all four quadrants.</li><li>✓ I can plot coordinates correctly.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Coordinate Plane and Plotting Points</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Solving Multi-Step Equations	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can solve a multi-step equation of one variable.</li><li>✓ I can solve a multi-step equation with variables on both sides.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Solving Multi-Step Equations – Variables on Both Sides</a> <a href="#">Solving Equations with Division</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

## Week 5

<b>Prerequisite Skill:</b> Solving Proportions	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can solve a proportion using cross multiplication (cross products).</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Solving Proportions Using Cross Products</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Lines and Angles	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can determine if pairs of angles are complementary or supplementary.</li><li>✓ I can determine the measures of alternate interior angles, alternate exterior angles, corresponding angles, and vertical angles when two parallel lines are cut by a transversal.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Types of Angles and Angle Relationships</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

## Week 6

<b>Prerequisite Skill:</b> Properties of Quadrilaterals	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can prove a quadrilateral is a parallelogram given information about the sides, angles, or diagonals.</li><li>✓ I can identify a quadrilateral with a specific name when given a description of the properties of the quadrilateral.</li><li>✓ I can calculate missing measurements in rhombuses, rectangles, and squares using their properties.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Properties of Quadrilaterals</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	

<b>Prerequisite Skill:</b> Rounding	<b>Learning Targets:</b> <ul style="list-style-type: none"><li>✓ I can round decimals to a specific place value.</li><li>✓ I can explain how decimals are rounded.</li></ul>
<b>Instructional Videos:</b> Watch the videos below for additional help with the prerequisite skills (press Ctrl and click to follow the link).  <a href="#">Rounding Decimals</a>	
<b>Practice Problems:</b>  <a href="#">CLICK HERE</a> to complete the practice problems (press Ctrl and click to follow the link).	