

## Grade 7

Distance Learning Module 4: Week of: April 20<sup>th</sup> -24<sup>th</sup>

### Mathematics - Grade 7 Pre-Algebra - Modified from [Unit C - Geometry](#)

#### Targeted Goals from Stage 1: Desired Results

**Content Knowledge:** Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers).

**Vocabulary:** Complementary, supplementary, vertical angles, intersecting lines

**Skills:** 1) Students will be able to find missing angle measurements using supplementary angles, complementary angles and vertical angles.  
2) Students will be able to solve equations with variables on both sides including those that result in one solution, no solutions or an infinite number of solutions.

#### Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
<p>Monday: This week we will do a combination of new Geometry and new Algebra.</p> <p>The Geometry today: You will be learning about complementary and supplementary angles.</p> <p>The Algebra today: you will be learning how to solve an equation with a variable on both sides.</p>	<p>Supplementary Angles (Quick Exploration)(optional)</p> <p><b>Complementary Angles:</b> two angles whose sum is 90 degrees (such as 80 degrees and 10 degrees)</p> <p><b>Supplementary Angles:</b> two angles whose sum is 180 degrees (such as 60 degrees and 120 degrees)</p> <p>Video on How to Solve Equations with Variables on Both Sides</p>	<p>Khan Academy (Practice Problems) Complementary and Supplementary Angles</p> <p>Khan Academy Equations with Variables on Both Sides</p>

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
	<p>Khan Video: Solving Equations with Variable on Both Sides</p> <p>Explanation on Solving Equations with Variables on Both Sides (skip first two equations on this page)(do problems before revealing the solution - this is your time to practice and learn)</p>	
<p>Tuesday:</p> <p>The Algebra today: You will see how sometimes when you solve an equation with a variable on both sides you get a funky answer.</p>	<p>Video of No Solution</p> <p>Video of Infinite Number of Solutions</p> <p>Practice Problems (you do not need to do all these - do enough to be proficient)</p>	<p>Google form assigned by your teacher</p>
<p>Wednesday:</p> <p>The Geometry today: You will be doing slightly more difficult complementary and supplementary angles problems....and you'll use Algebra to do that!</p>	<p>Measuring Angles Game - Try to Guess the Angle before you Measure it.</p> <p>Video How to Solve Complementary Angle Problems with Algebra</p> <p>Video How to Solve Supplementary Angles Problems with Algebra</p> <p>Complementary and Supplementary Angles Worksheet (There are pages of problems! You do not need to do all these - do enough to be proficient - <b>Answers start on page 82</b>)</p>	<p>Google form assigned by your teacher</p>
<p>Thursday: Vertical Angles</p> <p>For both worksheets - just do enough to feel</p>	<p>Vertical Angles Video (you can jump to 45 sec)</p> <p>Easy Problems w/out Algebra</p>	<p>Teacher will review Khan Academy Practice Problems and VerticalAngles Google form Check</p>

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
confident with the material.	Vertical Angles w/ Equations Khan Video  Vertical Angles Worksheet  Finding Unknown Angles w/Algebra (Khan Practice Problems)	
Friday:  For all worksheets - just do enough to feel confident with the material.	Mixed Angles Practice Worksheet (answers)  Kuta Practice  Mixed Angles Notes and Practice Wkst  Notes and Mixed Practice Worksheet (answers part 1) (answers part 2)	Khan Practice Comp, Supp and Vertical Angles

**Week criteria for success** (attach student checklists or rubrics):

- 1) I know that complementary angles are two angles that add up to 90 degrees.
- 2) I know that supplementary angles are two angles that add up to 180 degrees.
- 3) I know that opposite or vertical angles are the congruent (equal) angles formed by two intersecting lines.
- 4) I can solve problems involving complementary, supplementary and vertical angles.
- 5) I can solve equations that have a variable on both sides.
- 6) I know that if an equation has a variable on both sides I might get one answer, no solution or an infinite number of solutions.

**Supportive resources and tutorials for the week** (plans for re-teaching):

Do any optional work.

Ask teacher for clarification.