

Geometry Reflective Portfolio

Unit #3: Unknown Angles

Must be in folder with Study Portfolios 1 and 2!



Section #1: Vocabulary (words and/or diagrams)

- Types of angle pairs:

complementary	supplementary	adjacent
vertical	alternate interior	alternate exterior
corresponding	same-side interior	linear pair
<u>Isosceles Triangle</u> -draw, and label the parts (vertex angle, base angles, legs, base) <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> </div>		exterior angle of a triangle

Section #2: Formulas/Equations/Theorems

- Write each formula AND then calculate the slope, midpoint and length of the segment with endpoints at (3, -6) and (7, 2)

Slope Formula: <u>You must show work:</u> <div style="text-align: right;">Ans. 2</div>	Midpoint formula: <u>You must show work:</u> <div style="text-align: right;">Ans. (5, -2)</div>	Distance formula: <u>You must show work:</u> <u>Leave in simplest radical form.</u> <div style="text-align: right;">Ans. $4\sqrt{5}$</div>
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- Properties:

Reflexive	Symmetric	Transitive
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- Sum of the measures of adjacent angles on a straight line is _____.
- Sum of the measures of adjacent angles around a point is _____.
- 3 undefined terms of geometry are _____, _____ and _____.

Complete each theorem:

<p>Vertical Angle Theorem</p> <p>Vertical angles are formed by intersecting lines and these angles are _____.</p>	<p>Linear Pair Theorem</p> <p>Linear pair of angles are _____.</p>	<p>Isosceles Triangle Base Angles Theorem</p> <p>If a triangle has 2 congruent sides, then the angles opposite are _____.</p>
<p>Converse Isosceles Triangle Base Angles Theorem –</p> <p>If a triangle has 2 congruent angles, then the sides opposite are _____.</p>	<p>Isosceles Triangle Symmetry Theorem –</p> <p>The line containing the bisector of the vertex angle of an isosceles triangle is a line of _____ for the triangle.</p>	<p>Isosceles Triangle Coincidence Theorem</p> <p>In an isosceles triangle, the bisector of the vertex angle, the perpendicular bisector of the base, and the median to the base determine the _____.</p>
<p>Triangle Sum of Interior Angle theorems</p> <p>The sum of the measures of the interior angles of a triangle is _____.</p>	<p>Triangle Exterior Angle theorems</p> <p>The measure of the exterior angle of a triangle is equal to the sum of the two _____.</p> <p>The sum of the measures of an exterior angle and its adjacent interior angle is _____.</p> <p>The sum of the measures of all three exterior angles is _____.</p>	<p>Triangle Inequality Theorems</p> <p>The sum of two sides of a triangle must be _____.</p> <p>The exterior angle of a triangle is greater than either _____.</p> <p>The largest angle of a triangle is opposite the _____.</p> <p>The shortest side is opposite the _____.</p>

Section #3: Key methods and Concepts

Using the definitions, write out plans, including formulas you would use to prove each triangle definition. **Follow the example!**

<p>Equilateral triangle</p> <p>3 distance formulas</p> <p>all the same length</p>	<p>Isosceles triangle</p>	<p>Scalene triangle</p>
<p>Right triangle</p>	<p>altitude</p>	<p>median</p>