

Geometry - Unit 2 Review Glossary

This review glossary must be completed and turned in on the day of the unit 2 test.

Definitions:

1. Vertical Angles: non-adjacent angles formed by intersecting lines
2. Supplementary Angles: two angles whose sum is 180°
3. Complementary Angles: two angles whose sum is 90°

Postulates:

1. Segment Addition: sum of two segments = whole segment
2. Angle Addition: sum of two angles = whole angle
3. Transitive: If $a=b$ and $b=c$ then $a=c$
4. Reflexive: a figure is always congruent to itself

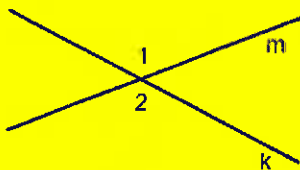
Theorems:

1. Vertical Angle Theorem: vertical angles are congruent
2. Right Angle Theorem: all right angles are congruent
3. Supplementary Angle Theorem: adjacent angles formed by intersecting lines are supp
4. Supplementary Theorem 1: $\cong \angle$ s have \cong supplements / supp to $\cong \angle$ s are \cong
5. Supplementary Theorem 2: supplements to the same \angle are \cong
6. Supplementary Theorem 3: \angle s that are both supplementary & \cong are 90°
7. Complementary Angle Theorem: If 2 adj \angle s form a right \angle , the \angle s are complementary
8. Complementary Theorem 1: $\cong \angle$ s have \cong complements
9. Complementary Theorem 2: 2 \angle s complementary to the same \angle are \cong

Intersecting Lines (Hidden Givens):

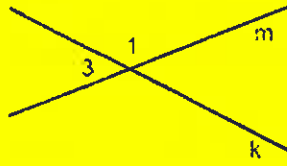
Given: 2 lines that intersect

1. Vertical Angles



Statement	Reason
(Identify the angles)	
1. $\angle 1$ vertical $\angle 2$	1. non-adj \angle s formed by intersecting lines are vertical
(Use the angles)	
2. $\angle 1 \cong \angle 2$	2. vertical \angle s are \cong

2. Supplementary Angles



Statement	Reason
(Identify the Angles)	
1. <u>∠1 & ∠3</u>	1. <u>the adj. ∠s formed by intersecting lines are supp.</u>
2. (Use the Angles)	2. (4 options)

LOGIC:

Conjunction & Disjunction:

- The statement "X or Y" is true when either x or y is true
- The statement "X and Y" is true when both x and y are true

Logical Equivalence:

Given a conditional statement: "If X then Y."

- The *Converse* is if y then x
- The *Inverse* is if not x then not y
- The *Contra-positive* is if not y then not x
- The Contra-positive is always Logically Equivalent to the original conditional.

(Complete this section after the unit test)

Segment/Angle Addition Proofs:

Addition Case:		Subtraction Case:	
Given: <u>part</u> = <u>part</u>		Given: <u>Parts</u> = <u>Whole</u>	
Prove: <u>Parts</u> = <u>whole</u>		Prove: <u>Part</u> = <u>Part</u>	
<i>Basic Proof Steps:</i>		<i>Basic Proof Steps:</i>	
Statement	Reason	Statement	Reason
1. Part = Part	1. Given	1. Whole = Whole	1. Given
2. Part + Part = Part + Part	2. <u>Add prop of eq</u>	2. Parts = Whole	2. <u>segment addition</u>
3. Parts = Whole	3. <u>segment addition</u>	3. Part + Part = Part + Part	3. <u>substitution</u>
4. Whole = Whole	4. <u>Substitution</u>	4. Part = Part	4. <u>subtr. prop of eq</u>