

C C

Name: _____

D ,

Date: _____ Per: _____

Definition – is a statement of the precise meaning of a term.

D _____

A A – are two angles in the same plane that have a common vertex and a common side, but do not have any interior points in common.

A – is a line segment drawn from any vertex of the triangle, perpendicular to and ending in the line that contains the opposite side.

A B – is a line segment that bisects any angle of the triangle and terminates in the side opposite that angle.

B – is a ray whose endpoint is the vertex of the angle, and that divides the angle into two congruent angles.

B – is any line that intersects the segment at its midpoint.

C – is a set of points all of which lie on the same line.

C A – are two angles the sum of whose degree measures is 90.

C A – are angles that have the same measure.

Notation: $\angle A \cong \angle B$ (The angles are congruent)

$\angle A = \angle B$ (The measures of the angles are the same number)

C – are segments that have the same measure.

: $\overline{AB} \cong \overline{CD}$ (The segments are congruent)

= (The measures or distances are the same number)

– is a triangle that has two congruent sides.

— is the distance between the endpoints.

– is a set of points consisting of two points on line, called endpoints, and all points on the line between the end points

– are two adjacent angles whose sum is a straight angle.

– is a line segment that joins any vertex of the triangle to the midpoint of the opposite side.

– is the point of that line segment that divides the segment into two congruent segments.

B – is a line, line segment, or ray that is perpendicular to the line segment and bisects the line segment.

– are two lines that intersect to form right angles.

A – an angle whose degree measure is 90.

– is a triangle that has one right angle.

A – is an angle that is the union of opposite rays. It is also an angle whose degree measure is 180.

A – are two angles the sum of whose degree measures is 180.

– is a polygon that has exactly three sides.

A – are two angles in which the sides of one angle are opposite rays to the sides of the second angle.

Theorem \exists is a statement that is proved by deductive reasoning.

Theorems

1. If two angles are right angles, then they are congruent.
2. If two angles are straight angles, then they are congruent.
3. If two angles are complements/supplements of the same angle, then they are congruent.
4. If two angles are congruent, their complements/supplements are congruent.
5. If two angles form a linear pair, they are supplementary.
6. If two angles are vertical angles, then they are congruent.
7. If two sides of a triangle are congruent, then the base angles opposite these sides are congruent.
8. The base angles of an isosceles triangle are congruent.

Postulates and Theorems that help prove two triangles congruent

1. Side \exists Angle \exists Side Postulate : Two triangles are congruent if two sides and the included angle of one triangle are congruent respectively to two sides and the included angle of the other.
2. Angle \exists Side \exists Angle Postulate: Two triangles are congruent if two angles and the included side of one triangle are congruent respectively to two angles and the included angle of the other.
3. Side \exists Side \exists Side Postulate: Two triangles are congruent if the three sides of one triangle are congruent