# Geometry Info Sheet \#4 

Types of Angles; Angle Bisectors, Relationships, and Congruency

## Definitions

Linear Pair: Two angles formed by the endpoint of a ray on a line

Degree: The unit of angle measure that results when a circle is divided into 360 equal parts

Straight Angle: An angle with a measure of exactly 180 degrees
Reflex Angle: An angle with a measure greater than 180 degrees

Right Angle: An angle with a measure of exactly 90 degrees
Acute Angle: An angle with a measure less than 90 degrees
Obtuse Angle: An angle with a measure greater than 90 degrees and less than 180 degrees

Two angles are complementary if the sum of their measures is 90 degrees. Each angle is called the complement of the other.

Two angles are supplementary if the sum of their measures is 180 degrees. Each angle is called the supplement of the other.

An angle bisector is a ray, line, segment, or plane that divides an angle into two congruent angles.

## Postulates

Angle Congruence Postulate: If two angles have the same measure, then they are congruent. If two angles are congruent, then they have the same measure.

Angle Addition Postulate: If point $S$ is in the interior of $\Varangle P Q R$, then the measure of angle $P Q S$ plus the measure of angle $S Q R$ equals the measure of angle $P Q R$ $(\mathrm{m} \Varangle P Q S+\mathrm{m} \Varangle S Q R=\mathrm{m} \Varangle P Q R)$.

## Properties

If two angles form a linear pair, then they are supplementary.

