## Theorems and Postulates

## Postulate 2-A <br> Protractor Postulate

Definition of Right, Acute and Obtuse Angles

Given $\overrightarrow{A B}$ and a number $r$ between 0 and 180, there is exactly one ray with endpoint $A$, extending on either side of $\overrightarrow{A B}$, such that the measure of the angle formed is $r$.

Postulate 2-B
Angle Addition
$\angle A$ is a right angle if $m \angle A$ is $\mathbf{9 0}$.
$\angle A$ is an acute angle if $m \angle A$ is less than 90.
$\angle A$ is an obtuse angle if $m \angle A$ is greater than 90 and less than 180.

If $R$ is in the interior of $\angle P Q S$, then $m \angle P Q R+m \angle R Q S=m \angle P Q S$.
If $m \angle P Q R+m \angle R Q S=m \angle P Q S$, then $R$ is in the interior of $\angle P Q S$.

Vertical angles are congruent.

The sum of the measures of the angles in a linear pair is $180^{\circ}$.

The sum of the measures of complementary angles is $90^{\circ}$.

