## Angle Measure

Angle - A figure consisting of two noncollinear rays with a common endpoint.


Acute Angle - An angle whose measure is between $0^{\circ}$ and $90^{\circ}$.


Right Angle - An angle whose measure is $90^{\circ}$.


Obtuse Angle - An angle whose measure is between $90^{\circ}$ and $180^{\circ}$.




Reflex Angle - An angle whose measure is between $180^{\circ}$ and $360^{\circ}$.


Congruent Angles - Angles that have the same measure.


Protractor Postulate - Given $\overrightarrow{A B}$ and a number $r$ between $0^{\circ}$ and $180^{\circ}$, 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 $r$.


Angle Addition Postulate - If $R$ is the interior of $\measuredangle P Q S$, then $m \measuredangle P Q R+m \measuredangle R Q S=m \measuredangle P Q S$.


Angle Bisector $-\overrightarrow{B D}$ is the bisector of $\measuredangle A B C$ if $D$ is in the interior of the angle and $\measuredangle A B D \cong \measuredangle C B D$.


Directions: Refer to the figure below for questions 1-5.


1. Name two angles that have $C$ as a vertex.
2. If $\overrightarrow{B F}$ bisects $\measuredangle C B E$, name two congruent angles.
3. List all the angles that have $B$ as the vertex.
4. Name a pair of opposite rays.
5. Name the sides of $\measuredangle A B E$.

Directions: Refer to the figure below for questions $6-10 . \overrightarrow{B A}$ and $\overrightarrow{B C}$ are opposite rays and $\overrightarrow{B D}$ bisects $\measuredangle C B E$.

6. If $m \measuredangle E B D=3 x-4$ and $m \measuredangle D B C=2 x+1$, find $m \measuredangle E B D$.
7. If $m \measuredangle E B C=5 x+6$ and $m \measuredangle E B A=3 x+10$, find $m \measuredangle E B A$.
8. If $m \measuredangle D B C=x+4$ and $m \measuredangle E B C=7 x-12$, find $m \measuredangle E B D$.
9. If $m \measuredangle A B E=2 x+40$ and $m \measuredangle E B D=3 x$, find $m \measuredangle A B E$.
10. If $m \measuredangle E B C$ is a right angle and $m \measuredangle D B C=12 x+9$, find $m \measuredangle E B D$.

