

Degree:

- * How we measure an angle.
- * Label answers with $^{\circ}$ symbol.

Ray:

- * Part of a line that only goes in one direction forever.
- * Named w/ 2 letters, the first must be the endpoint, the second letter is any point on the ray.

Opposite Rays:

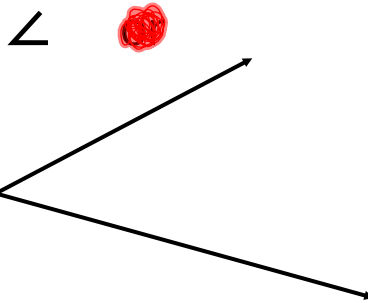
- * Two rays that go in opposite directions, but have the same endpoint.
- * Opposite rays will form a line.



Angle:

- * The intersection of two nonlinear rays at a common endpoint.
- * Name with one letter (the vertex letter) or with 3 letters (the vertex letter is in the middle).
- * Could also be named with a number if one is there.

* Symbol:

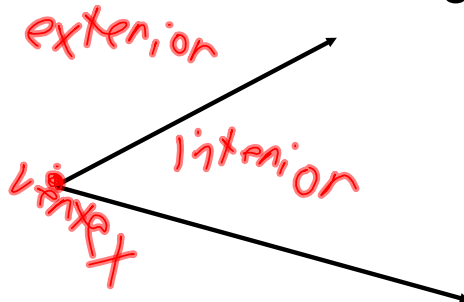
**Angle Parts:**

Rays- The sides that make up the angle.

Vertex- The common endpoint.

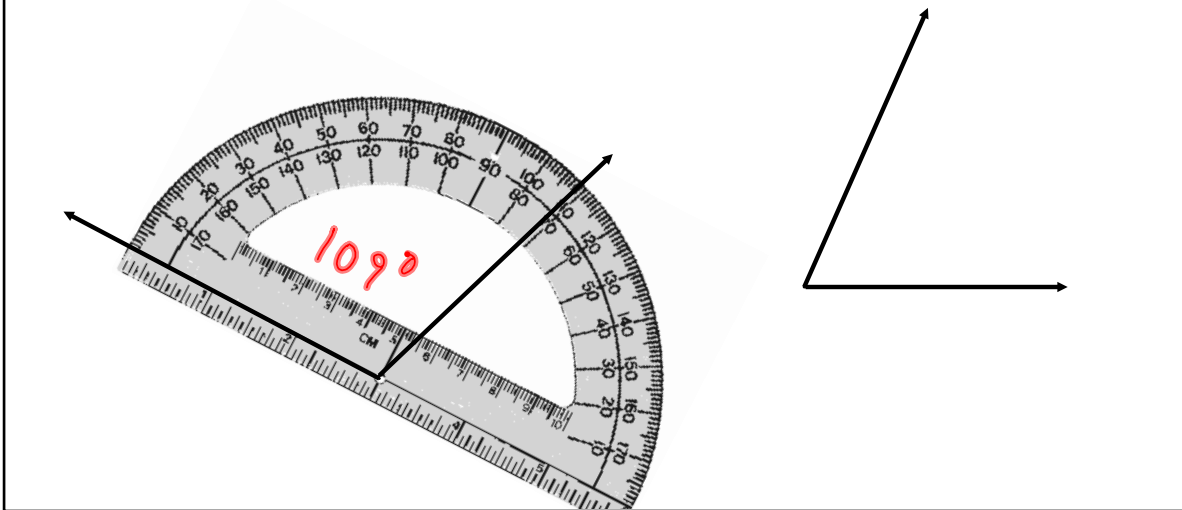
Interior- The inside of the angle.

Exterior- The outside of the angle.



Protractor-

- * The device use to measure an angle.



Right Angle-

- * An angle that measures exactly 90° .
- * Can be indicated with a little box in the corner.

Acute Angle-

- * An angle that measures between 0° and 90° .
- * Has a small opening.

Obtuse Angle-

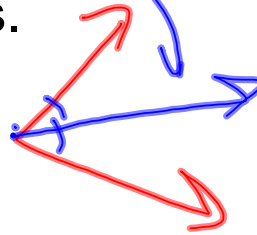
- * An angle that measures between 90° and 180° .
- * Has a wide opening.

Congruent Angles:

- * Two angles that have the same measure.

Angle Bisector:

- * The line or ray that divides an angle into two congruent angles.



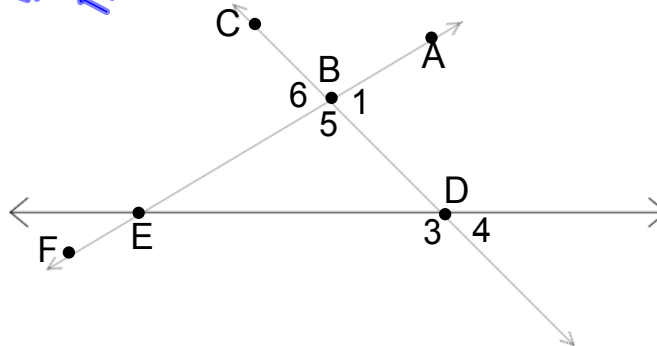
- Use the diagram below to name the following.

- Name all angles that have B as a vertex.
 $\angle ABC$ $\angle 5$
 $\angle 6$

- Name the sides of $\angle 5$. \vec{BE} & \vec{BD}

- Write another name for $\angle 6$.

$\angle CBE$



2. Use the star labeled and shown below to solve. Find $m\angle GBH$ and $m\angle HCI$ if $\angle GBH \cong \angle HCI$, $m\angle GBH = 2x + 5$, and $m\angle HCI = 3x - 10$.

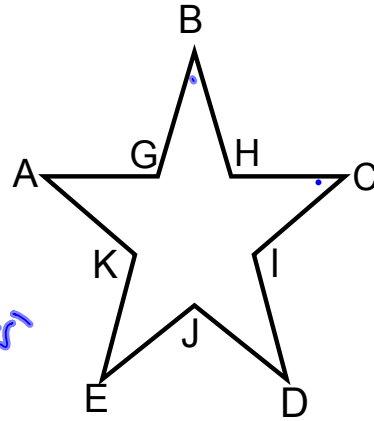
$$2x + 5 = 3x - 10$$

$$\begin{array}{r} -2x \\ \hline 5 = x - 10 \end{array}$$

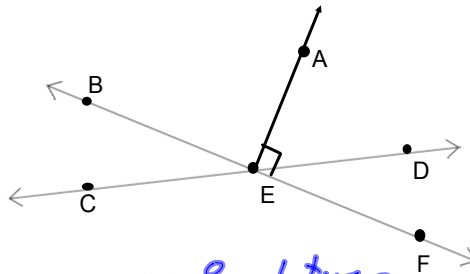
$$\begin{array}{r} +10 \\ \hline 15 = x \end{array}$$

$$m\angle GBH = (15) + 5 = 35^\circ$$

$$m\angle HCI = 35^\circ$$



3. Measure each angle named and classify it as *right*, *acute*, or *obtuse*.



- a. $m\angle BED = 152^\circ$, obtuse
 b. $m\angle FED = 30^\circ$, acute
 c. $m\angle BEA = 90^\circ$, right

