## Angle Measure classwork

- Degree: $\frac{1}{360}$ of a turn around a circle

- Ray: part of a line
- It has one endpoint and extends indefinitely in one direction.
- Rays are named stating the endpoint first then any other point on the ray.


Please name 2 different rays: $\qquad$ \& $\qquad$

- Opposite rays: two rays extending from a common point on a line

- Angle: a figure consisting of two noncollinear $\qquad$ with a common $\qquad$
- Vertex - the common $\qquad$ of the rays of an angle
- Sides - the $\qquad$ forming an angle


## Angles:

An angle separates a plane into three distinct parts

- Interior
- Exterior
- The angle itself

Naming angles

- Use a single $\qquad$ or $\qquad$
- Triplet of $\qquad$ (center letter is the vertex) if there is any possible ambiguity regarding angle to which you refer.



## KeyConcept Classify Angles

| right angle | acute angle | obtuse angle |
| :---: | :---: | :---: |
|  | This symbol <br> means $90^{\circ}$ <br> angle. |  |
| $m$ |  |  |

Ex \#2: Use the figure to answer the following.
a) Name all the angles that have W as a vertex.
b) $\quad$ Name the sides of $\angle 1$.
c) Write another name for $\angle W Y Z$.

d) Name a pair of opposite rays.

- Congruent angles: angles that have the same measure.
- Arcs on the figure indicate which angles are congruent.
- If $m \angle A B C=m \angle D E F$, then it is said that $\angle A B C \cong \angle D E F$.
- Angle bisector: a ray that divides an angle into $\qquad$ is called an angle bisector.

Ex \#3: In the figure, $\overline{Y X}$ and $\overline{Y Z}$ are opposite rays.
$\overline{Y U}$ bisects $\angle Z Y W$
$\overline{Y T}$ bisects $\angle X Y W$.

a) If $m \angle 1=5 x+10$ and $m \angle 2=8 x-23$, find $m \angle 2$.
b) If $m \angle W Y Z=82$ and $m \angle Z Y U=4 r+25$, find $r$.
c) If $\angle Z Y W$ is a right angle and $m \angle Z Y U=13 a-7$, find $a$.

