$\qquad$ Date: $\qquad$ Vocabulary, Central Angles \& Inscribed Angles

| Circle | set of all points equidistant from a given point called the center of the circle |  |
| :---: | :---: | :---: |
| Chord | a segment whose endpoints are on the circle |  |
| Diameter | distance across the circle through its center |  |
| Radius | distance from the center to point on circle |  |
| Secant | a line that intersects the circle at exactly TWO points |  |
| Tangent <br> Point of Tangency | a line that intersects the circle exactly ONE time <br> where the tangent line intersects the circle |  |

EXAMPLE 1: Tell whether the line or segment is best described as a chord, a secant, a tangent, a diameter, or a radius-be specific!
a. $\overline{A D}$
b. $\overline{C D}$
c. $\overline{E G}$
d. $\overline{H B}$
e. $\overline{F B}$
g. $\overline{F E}$


| Central Angle: <br> an angle whose vertex <br> is the center of a circle |  |  |
| :--- | :--- | :--- |
| Minor Arc: <br> part of a circle that <br> measures less than $180^{\circ}$ |  |  |
| Major Arc: <br> part of a circle that <br> measures between $180^{\circ}$ <br> and $360^{\circ}$ |  |  |
| Semicircle: <br> an arc with endpoints <br> that are the endpoints <br> of a diameter of a <br> circle. The measure of a <br> semicircle is $180^{\circ}$ |  |  |

## BASIC REVIEW:

- A circle has $\qquad$
- A semicircle has $\qquad$
- Vertical angles are $\qquad$
- Linear pairs are $\qquad$

EXAMPLE 1: Finding measures of each arc of circle R. (NP is a diameter)
a. $\widehat{M N}$
b. $\widehat{M P N}$
c. $\widehat{P M N}$
d. $\widehat{P M}$


## Arc Addition Postulate

The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs

EXAMPLE 2: Finding the measures of Arcs
a. $\widehat{G E}$
b. $\overline{G E F}$
c. $\widehat{G F}$
d. $\widehat{F H E}$


| Congruent Circles: |
| :--- |
| Two circles that have the |
| same radius. |
| Congruent Arcs: <br> Two arcs that have the <br> same measure. They are <br> part of the same circle <br> or congruent circles |

EXAMPLE 3: Tell whether the highlighted arcs are congruent. Explain why or why not.
a.
b.


