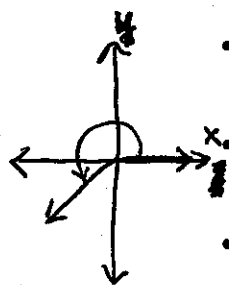
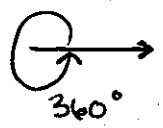
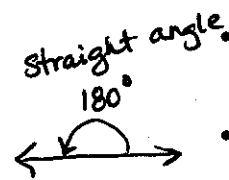


θ is principal $\&$ β is the related $\&$
 Pre-Calculus Chapter 6 Notes 6.1 Angles and Their Measure

use lower case Greek to represent angles
 α alpha
 β beta
 γ gamma
 θ theta

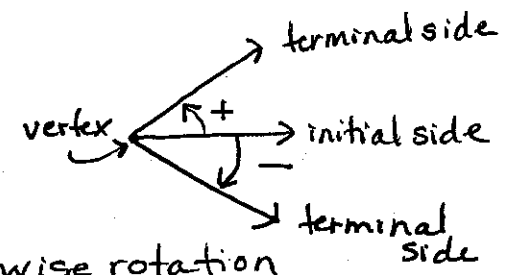
rays subtend an arc on circle subtended arc



vertical angles
 opposite angles made by 2 intersecting lines - they are equal

Vocabulary

- Line \longleftrightarrow connects 2 points via the shortest path and then continues in both directions
- Line segment --- portion of a line lying strictly b/w 2 points. finite length
- Ray --- $\frac{1}{2}$ of a line, has endpoint + extends infinitely in the other direction
- Angle - 2 rays that share a common endpoint, called the vertex - is formed when you rotate a ray around a fixed pt.
- Initial side - where measurement starts - initial position of ray
- Terminal side - where measurement ends. - final position of ray
- Vertex of an angle - common endpoint of rays



- Positive angle - formed by a counter-clockwise rotation
- Negative angle - clockwise rotation

obtuse: $\text{b/w } 90^\circ + 180^\circ$
 acute: $< 90^\circ$
 right: $= 90^\circ$

- Complementary angles - 2 acute angles that add to 90°
- Supplementary angles - 2 angles that add to 180°

- Central angle - an angle with its vertex at the center of a circle.
- Angle in standard position - an angle drawn in the x-y plane with its initial side on the positive x-axis.
- Quadrantal angle - an angle with its terminal side on the x- or y-axis (in standard position)
- Coterminal angles - angles (\bar{w} in standard position) share a terminal side
- Principal angle/related angle - principal angle is between 0° and 360°
 the related angle - acute angle formed by the terminal side and the x-axis.

location of $\&$ = location of terminal side

