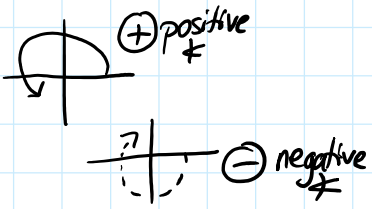
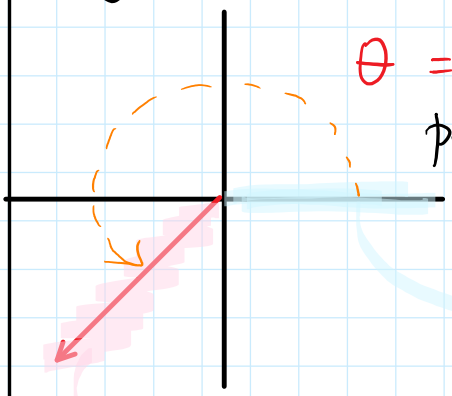
Angle in Standard Position

shorthand: ∠





θ = the principal ∠
positive ∠s r always counterclockwise

the initial arm = begins the ∠ & overlaps w/th positive dir f Ox.
u cld say ini. arm ≡ Ox+

the terminal arm = the end of the ∠

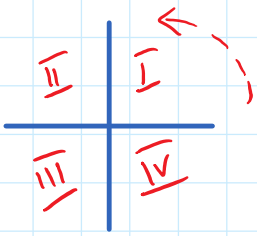
Reference ∠ r always ACUTE!

↳ ≡ is an ∠ between Ox & the terminal arm, is always positive & acute (<90°)

Examples

Notice: Ox doesn't hv 2 b th positive side for ref. ∠s.

Quadrants

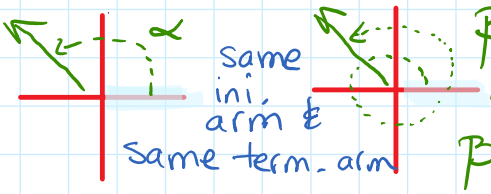


dir. f pos. ∠s = w/the dir f enumerating th quadrants

Coterminal ∠s } sharing a terminal arm

"co" ≡ shared

Ex: α & β r coterminal:

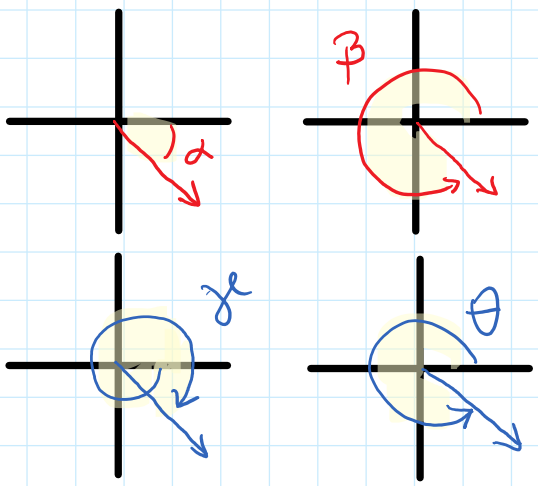


β, includes 1 full rotation

$\beta = 360^\circ + \alpha$

Negative ∠s

r always clockwise



α is negative

β is pos.

$|\alpha| + \beta = 360^\circ$

γ is neg.

θ is pos.

$|\gamma| + \theta = 360^\circ \times 2$

$= 720^\circ$