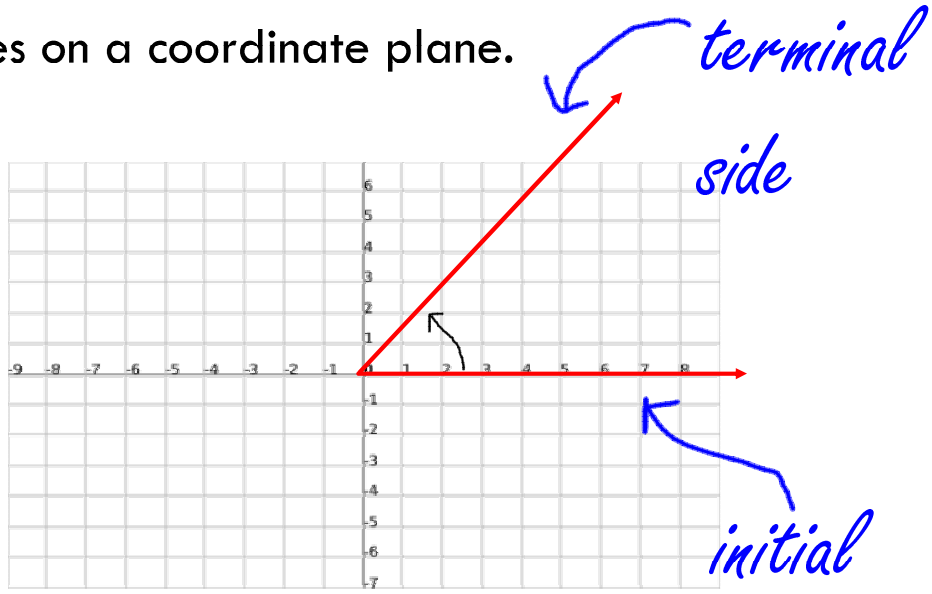
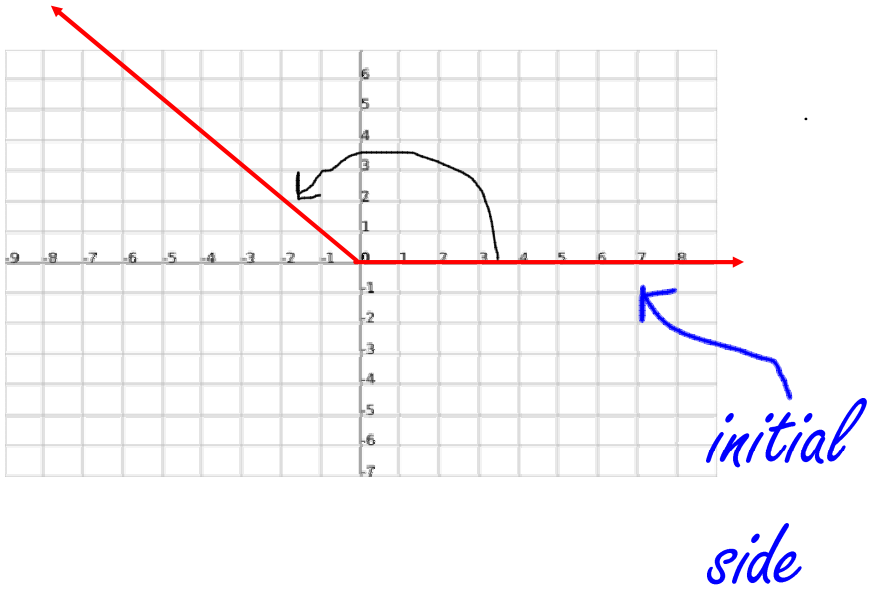
HW:
20. about 110 ft
22. About 4.6 in
26. About 45 ft

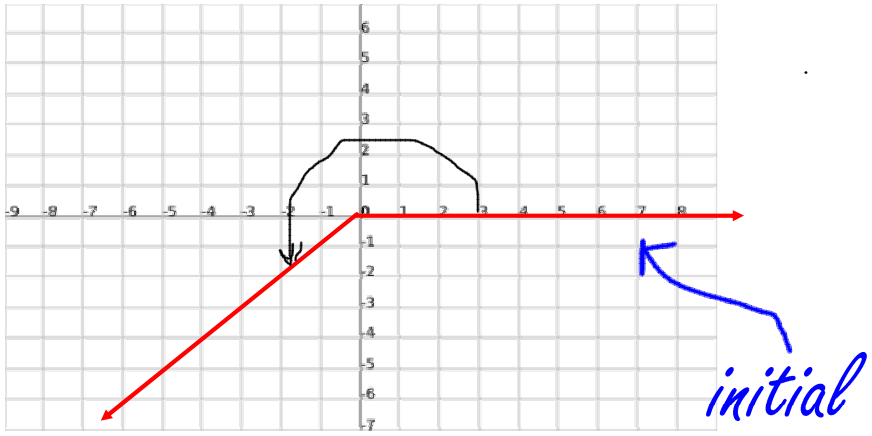
angles on a coordinate plane.



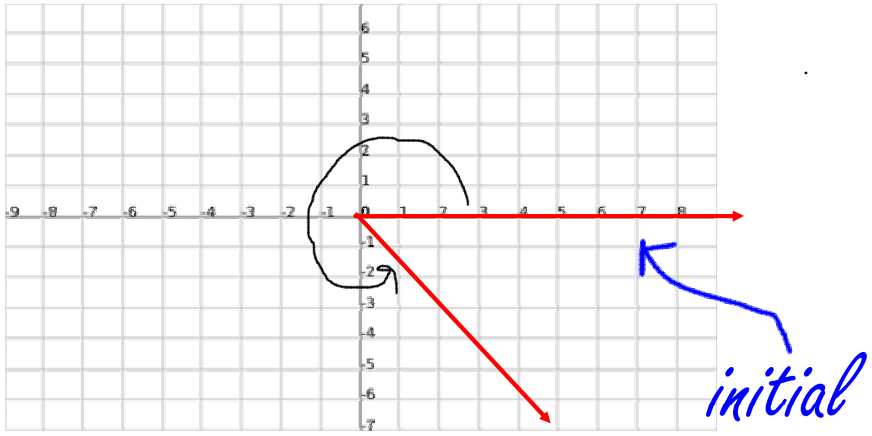
angles on a coordinate plane.



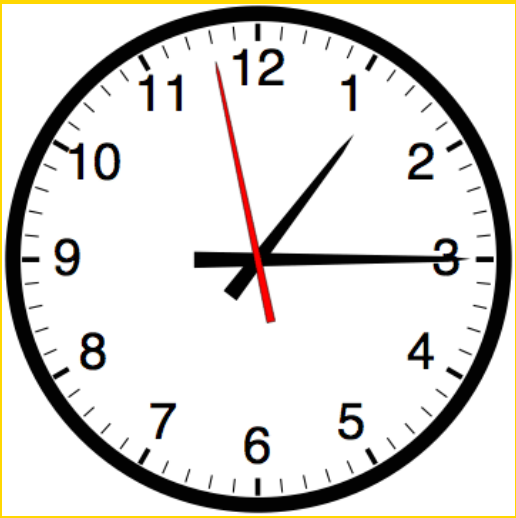
angles on a coordinate plane.



angles on a coordinate plane.

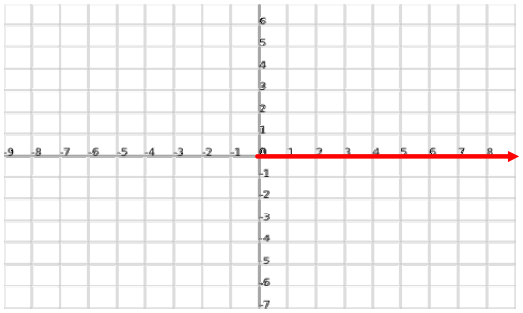
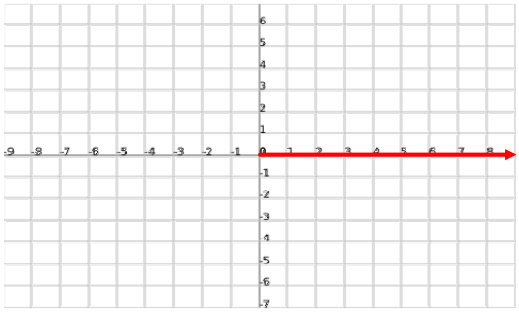
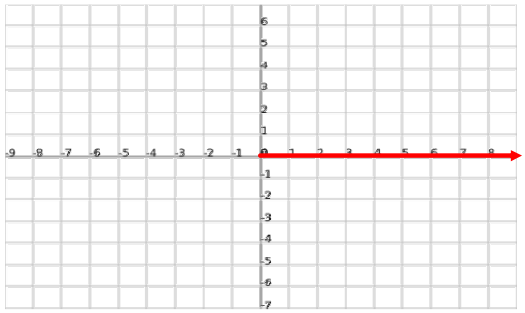
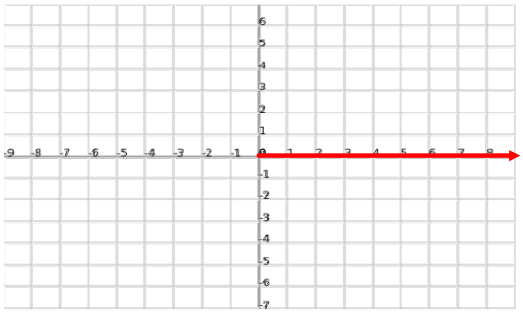


We measured

counter-  -wise

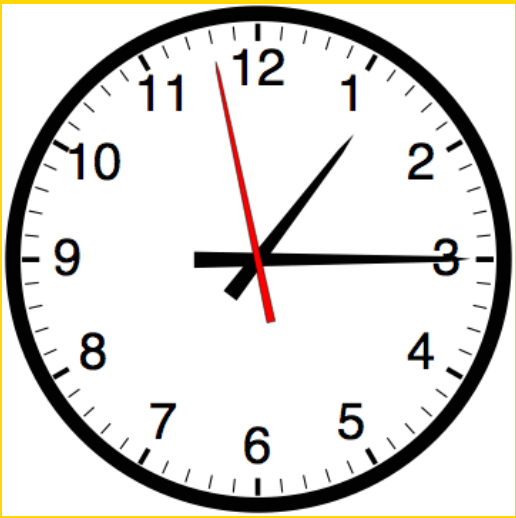
TEST YOURSELF!

Draw an angle of 90°, 180°, 270°, 360°

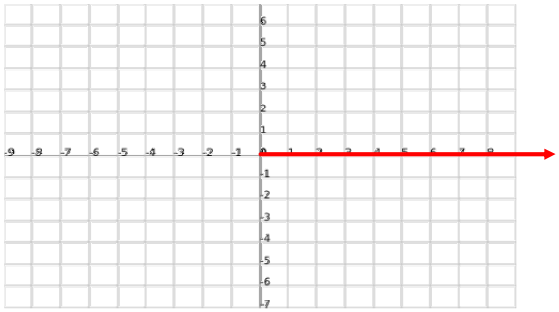
We can also measure

~~counter~~



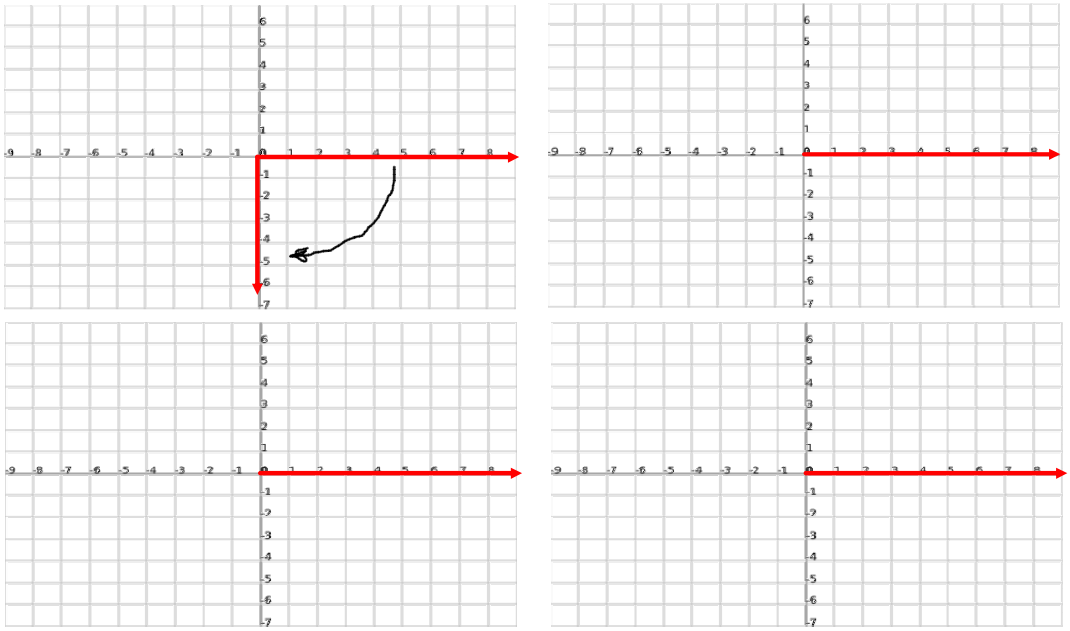
-wise

Measure an angle of -90°

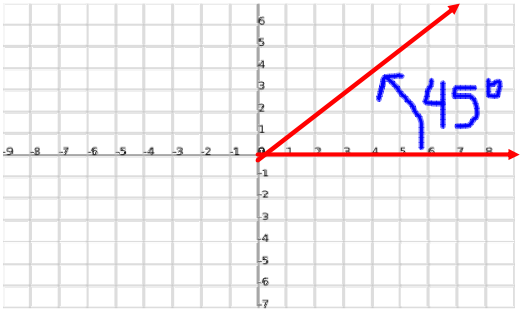


TEST YOURSELF!

Draw an angle of -90°, -180°, -270°, -360°

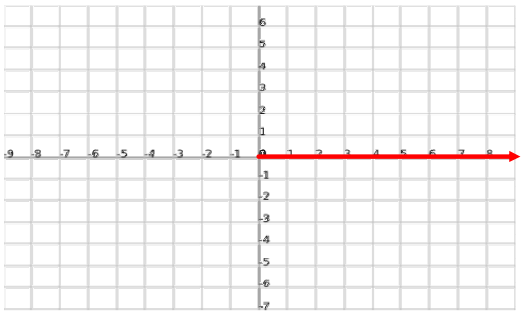


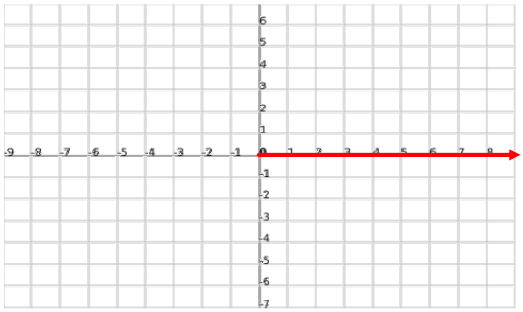
If two or more angles share the same **terminal side**, they are **coterminal**.



Check yoself:

Find two positive and two negative angles that are coterminal with (a) 47° and (b) -10°





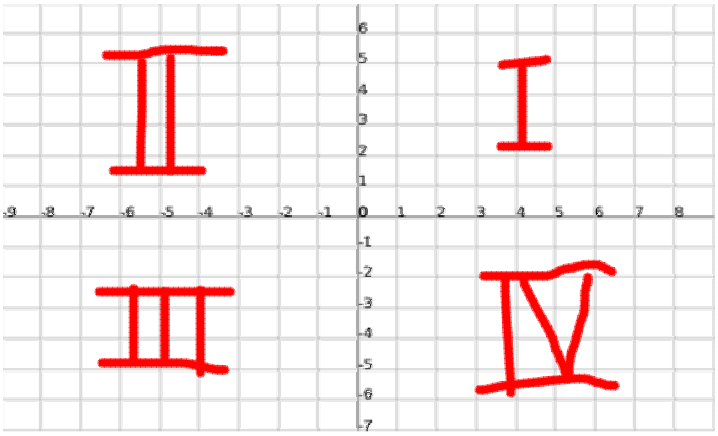
TERMINOLOGY REFRESHER:

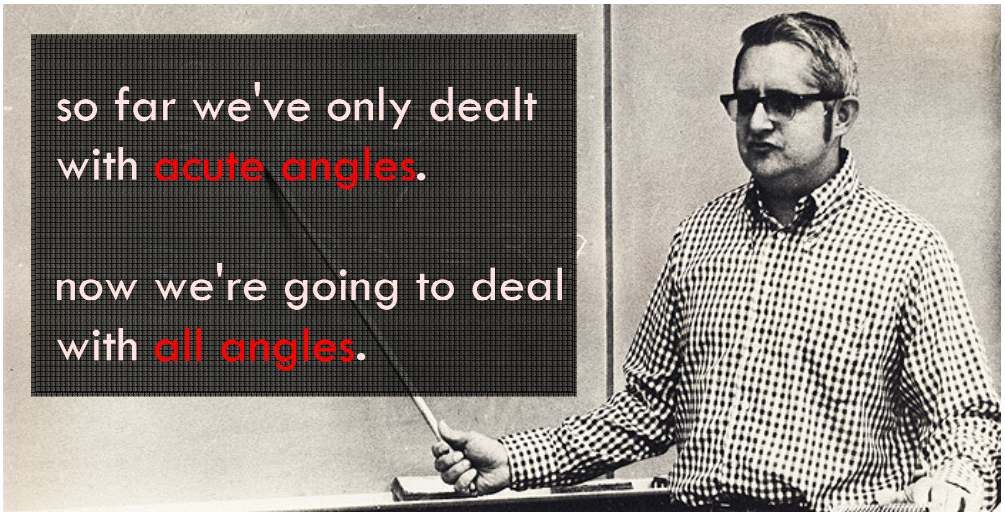
complementary

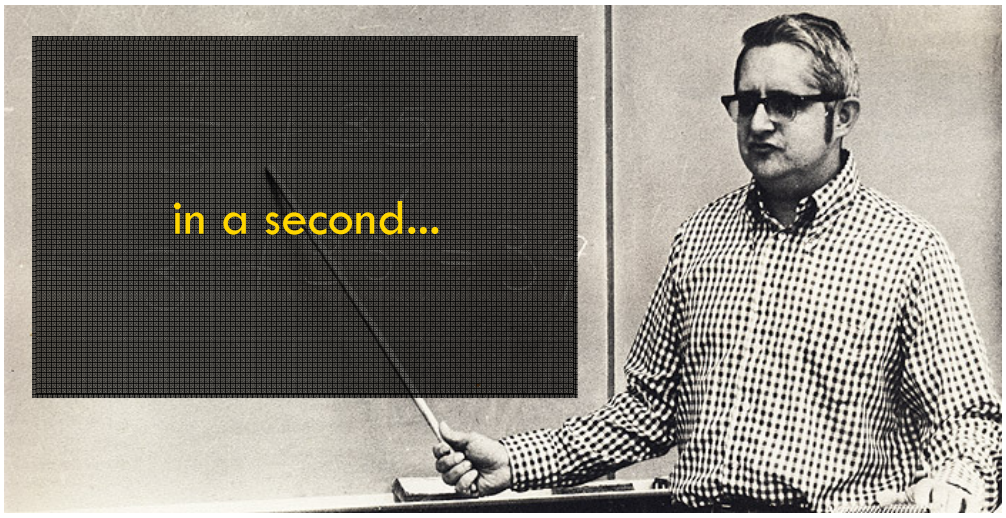
supplementary

acute / right / obtuse / straight

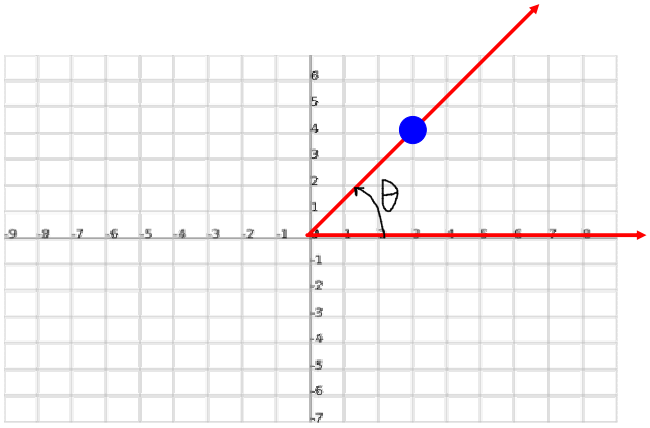
QUADRANTS!


II
I
III
IV


so far we've only dealt with acute angles.
now we're going to deal with all angles.



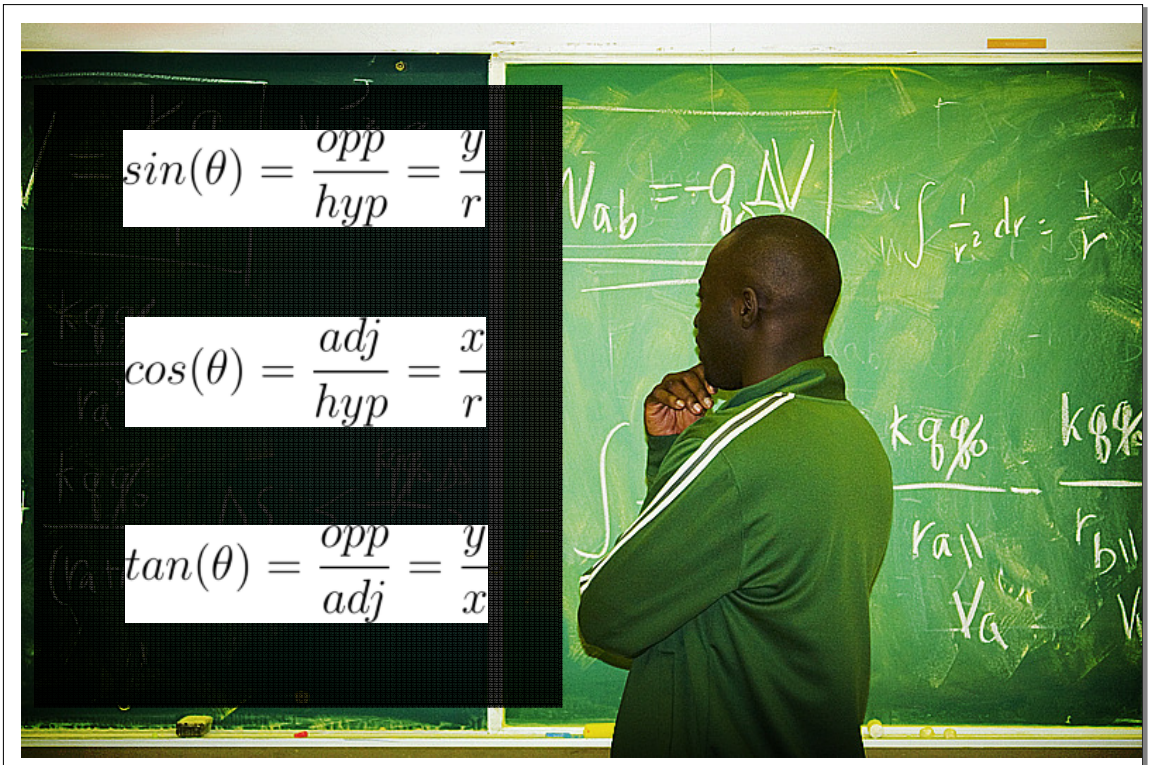
Find: $\sin(\theta)$, $\cos(\theta)$, $\tan(\theta)$, $\csc(\theta)$, $\sec(\theta)$, $\cot(\theta)$.

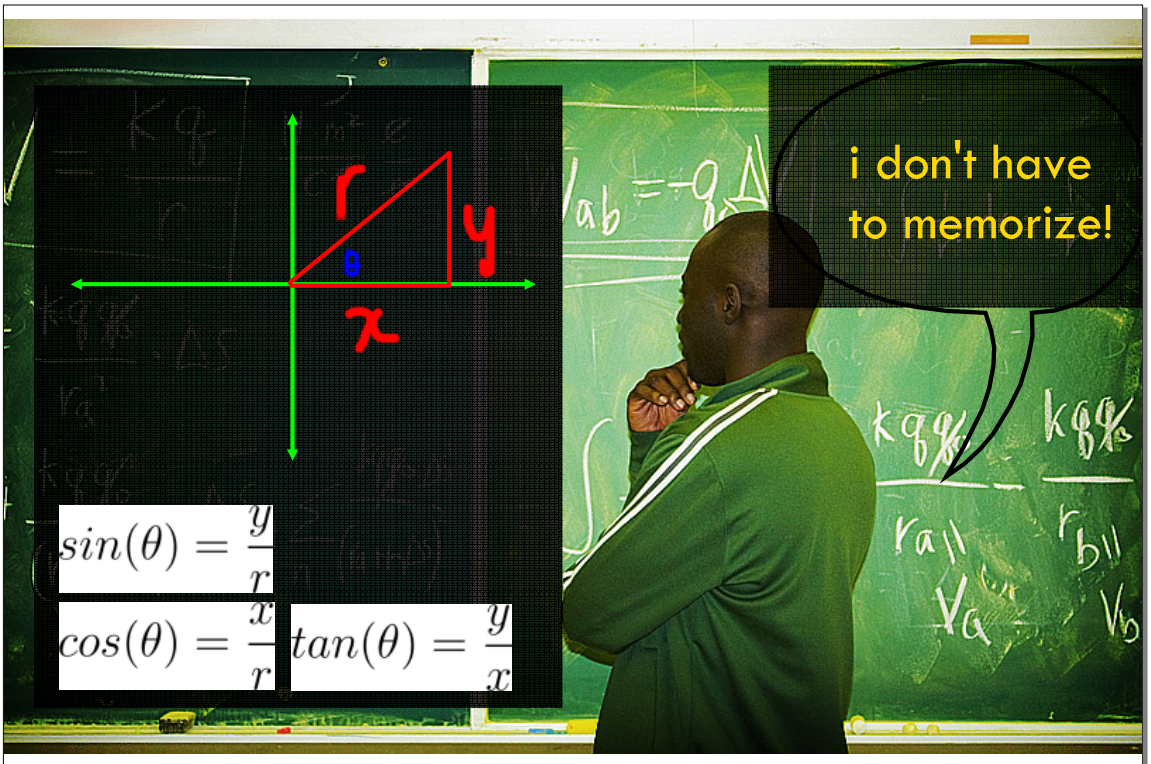


$\sin\theta =$ $\csc\theta =$

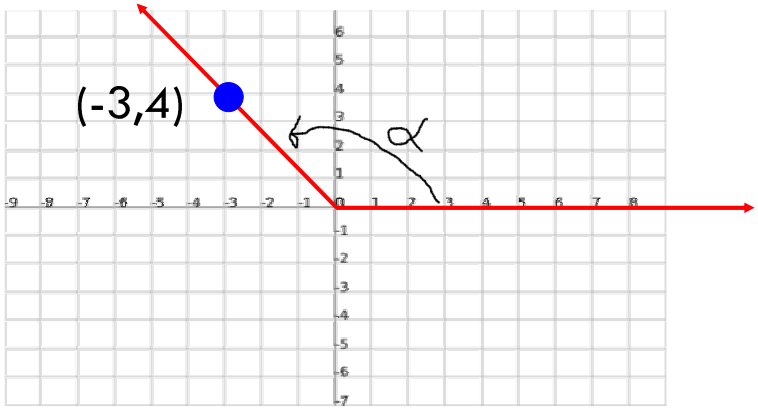
$\cos\theta =$ $\sec\theta =$

$\tan\theta =$ $\cot\theta =$


$sin(\theta) = \frac{opp}{hyp} = \frac{y}{r}$
$cos(\theta) = \frac{adj}{hyp} = \frac{x}{r}$
$tan(\theta) = \frac{opp}{adj} = \frac{y}{x}$


r
y
θ
x
$sin(\theta) = \frac{y}{r}$
$cos(\theta) = \frac{x}{r}$
$tan(\theta) = \frac{y}{x}$
i don't have to memorize!

TRIGONOMETRY!

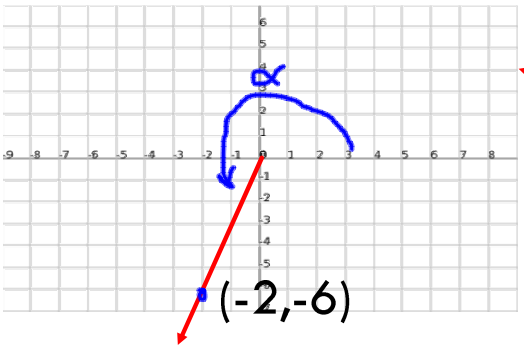


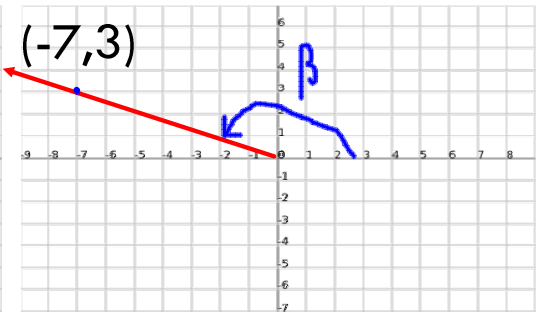
sin α= csc α=

cos α= sec α=

tan α= cot α=

Find the six trig functions of the angles shown. (Be sure to simplify radicals.)



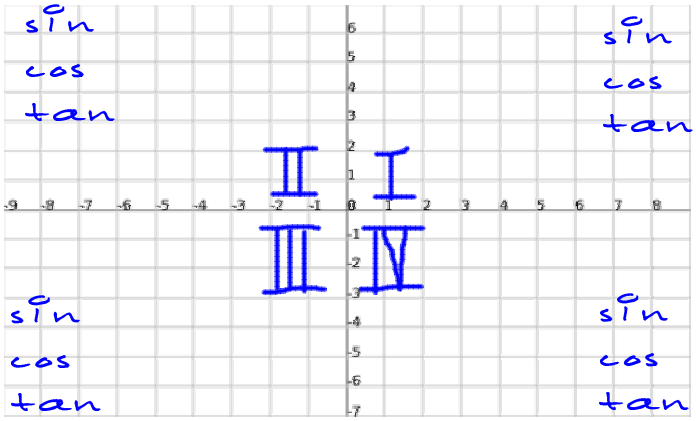


TRIG FUNCTIONS + and -

$$sin(\theta) = \frac{opp}{hyp} = \frac{y}{r}$$

$$cos(\theta) = \frac{adj}{hyp} = \frac{x}{r}$$

$$tan(\theta) = \frac{opp}{adj} = \frac{y}{x}$$



CHECK YOSELF

dont wreck yoself

a. If β=52°, tan(β) is [+ / -]
b. If β=152°, sin(β) is [+ / -]
c. If β=252°, cos(β) is [+ / -]
d. If β=-52°, sin(β) is [+ / -]
e. If β=-92°, tan(β) is [+ / -]

HW: Section 5.3:
1,2,5,6,8,9,13,17,19,23,25,26,28