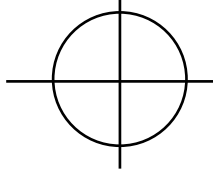
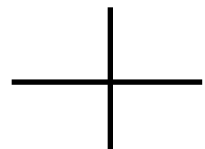


**PRECALC JOURNAL**  
**INTRO TO TRIGONOMETRY**

1. The relationship between degrees, minutes, & seconds is  $1^\circ = \underline{\hspace{1cm}}'$  and  $1' = \underline{\hspace{1cm}}''$ .
2. To enter an angle with degrees, minutes, & seconds in a calculator, go to \_\_\_\_\_  
\_\_\_\_\_. To convert an angle in decimal form to degrees, minutes, & seconds, use  
the \_\_\_\_\_ function found under the \_\_\_\_\_ key.
3. (a) Draw a picture showing how an angle of 1 radian is formed in a circle. 

(b) An angle of 1 radian is approximately \_\_\_\_\_ degrees.
4. Two angles of different sizes which stop at the exact same position are called \_\_\_\_\_  
\_\_\_\_\_.
5. Given the equation  $\sin \theta = \frac{3}{7}$ , you must enter \_\_\_\_\_ in your calculator to find the  
reference angle.
6. Linear velocity is the speed at which the \_\_\_\_\_ is moving  
while angular velocity is the speed at which \_\_\_\_\_ is moving.
7. Why are angle measurements in radians often preferred over angle measurements in degrees?  
\_\_\_\_\_.
8. Angles expressed in radians are special angles if they have denominators of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
\_\_\_\_\_, or \_\_\_\_\_.
9. (a) The result of evaluating an expression such as  $\csc 128^\circ$  is an (angle/value). *(circle one)*  
(b) The result of solving an expression such as  $\tan x = \frac{\sqrt{5}}{8}$  is an (angle/value). *(circle one)*
10. List the following formulas and operations. Do NOT write in full sentences.
  - a) Convert degrees to radians
  - b) Convert radians to degrees
  - c) (i) Definitions of  $\sin \theta$ ,  $\cos \theta$ , and  $\tan \theta$  in terms of opposite, adjacent, & hypotenuse.  
(ii) **Two sayings for remembering these.**
  - d) Three complementary function relationships
  - e) Label the navigation coordinate system in degrees.

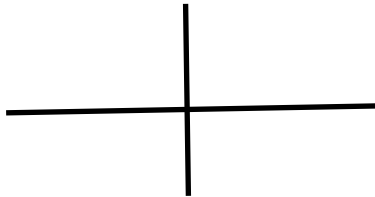


f) Formulas for arc length, area of a sector, angular velocity, and linear velocity. Give an example of the type of units each should be labeled with.

	Formula(s)	Units
Arc Length		
Area of Sector		
Angular Velocity		
Linear Velocity		

g) Definitions of the six trig functions in terms of  $x$ ,  $y$ , and  $r$  and the saying to remember them.

h) Quadrants where trig functions are positive



i) Table of possible trig function values

1-----  
-1-----

j) Special angle table with degrees and radians

Degrees	Radians	$\sin \theta$	$\cos \theta$	$\tan \theta$