Name_____

PRECALC JOURNAL
INTRO TO TRIGONOMETRY

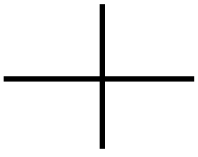
1. The relationship between degrees, minutes, & seconds is $1° =$ _____′ and $1′ =$ _____".
2. (a) Draw a picture showing how an angle of 1 radian is formed in a circle.

   (b) An angle of 1 radian is approximately _____ degrees.
3. Two angles of different sizes which stop at the exact same position are called _____ _____.
4. Given the equation $\sin\theta = \frac{3}{7}$, you must enter _____ in your calculator to find the reference angle.
5. Angular velocity is the speed at which the _____ is moving while linear velocity is the speed at which _____ is moving.
6. Why are angle measurements in radians often preferred over angle measurements in degrees? _____.
7. Angles expressed in radians are special angles if they have denominators of _____, _____, _____ _____, or _____.
8. (a) The result of solving an expression such as $\sec x = \frac{\sqrt{7}}{3}$ is an (angle/value). *(circle one)*

   (b) The result of evaluating a trig expression such as $\cot 145°$ is an (angle/value). *(circle one)*
9. 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.

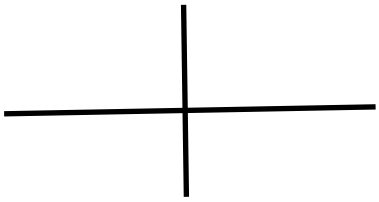


f) Formulas for arc length, area of a sector, angular velocity, and linear velocity. Give an example of the type of units each should be labeled with.

	Formula	Units
Arc Length		
Area of a 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**	$\sin\theta$	$\cos\theta$	$\tan\theta$