ACMAT118 Spring 2024
Professor Manguba-Glover
Section 6.1 Classwork (CW 5)

TN.T		
Name:		

Complete as many of the following problems as you can with your table. You do not have to go in order. If your entire table finishes early, and your answers have been checked, you may leave early.

- 1. Convert the following angle measures (from degrees to radians or from radians to degrees).
  - (a)  $45^{\circ}$

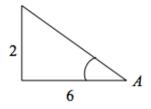
 $\begin{array}{cc} \text{(c)} & -\frac{5\pi}{2} \\ \text{(d)} & \frac{\pi}{6} \end{array}$ 

(b) 105°

2. Find the length of the arc intercepted by a  $30^{\circ}$  angle on a circle of radius 50 inches.

3. Find the number of degrees in an angle which intercepts a 30 inch arc on a circle of radius 50 inches.

4. Find the six standard trigonometric functions for angle A.



Key:

1. (a)  $\frac{\pi}{4}$ 

(d) 30°

(b)  $\frac{7pi}{12}$ 

(c)  $-450^{\circ}$ 

2.  $\frac{25\pi}{3}$  inches

3.  $\frac{108}{\pi}$  degrees

4.  $\sin A = \frac{1}{\sqrt{10}}$ ,  $\cos A = \frac{3}{\sqrt{10}}$   $\tan A = \frac{1}{3}$ ,  $\csc A = \sqrt{10}$   $\sec A = \frac{\sqrt{10}}{3}$ ,  $\cot A = 3$