WS #5-1
Angles and Their Measures

1. **Definitions and formulas**

You will be responsible to read the section completely and review the definitions and formulas/applications of the following:

A. Angle	D. Degree	G. Area of a sector
B. Standard position	E. Radian	H. Linear speed
C. Quadrantals	F. Arc Length	I. Angular speed

2. **Conversions:**

Convert the following:

A. $50^{\circ}\ 6'\ 21''$ to decimal degrees _____

B. 21.256° to DMS _____

C. 60° to radians (exact) _____

D. 107° to radians (approx) _____

E. $\left(\frac{\pi}{6}\right)^{r}$ to degrees _____

F. 3 to degrees _____

3. **Arc Length of a circle**

A. Find the length of the arc of a circle of radius 2 meters subtended by a central angle of 0.25 radian.

B. Glasgow, MT is due north of Albuquerque, NM. Find the distance between them if Glasgow is located at 48° 9' N and Albuquerque is located at 35° 5' N. Assume the radius of the earth is 3960 miles

4 **Area of a sector of a circle**

Find the area of a sector of a circle with radius 2 feet formed by a 30° angle