

Additional Problems Assignment 1

- Express each of the following in radian measure:
 - 20°
 - 35.24°
 - $50^\circ 15'$
 - $75^\circ 29' 18''$
- Find the radius of a circle for which an arc 10m long subtends an angle of:
 - 1 rad
 - $\frac{2}{3}$ rad
 - $\frac{2\pi}{3}$ rad
 - 20°
 - 50°
 - 150°
- If the radius of an automobile wheel is 0.6 meters and rotates at 500 revolutions per minute, what is the speed of the car in km/h ? (Hint: Make sure you convert your units. You can check if your method works by applying it to problem 1.31 and see if you get the right answer.)
- A train is traveling at the rate 12 mi/h on a curve of radius 3000 ft. Through what angle has it turned in 1 minute?