

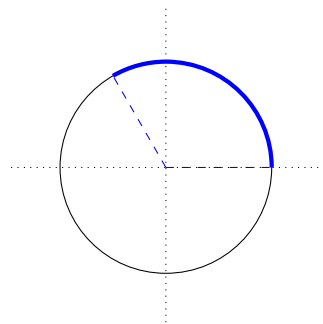
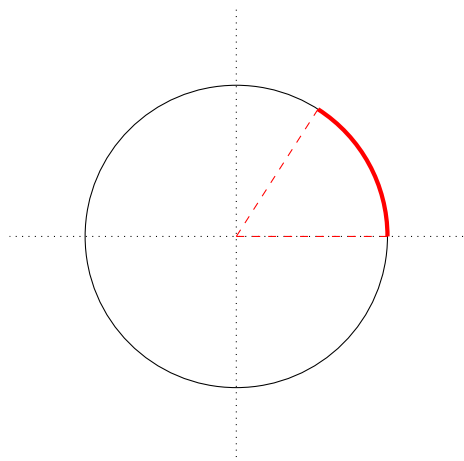
Name: _____

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Period: _____

Angular Quantities

Measuring Angles



Conversions

Angular Kinematic Quantities

Concept	Linear/Translational Quantity	Angular/Rotational Quantity	“Bridge”
position			
displacement			
	units:	units:	
velocity			
	units:	units:	
acceleration			
	units:	units:	

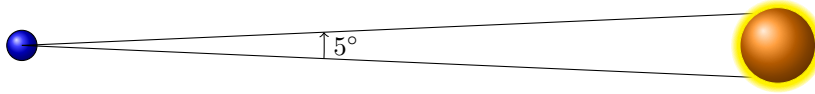
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Practice

1. When you look at the Sun from the surface of the Earth, it subtends an angle of about 0.5° in the sky. The Earth is 150 million km away from the Sun. Estimate the radius of the Sun.



2. A bicycle has wheels of diameter 68 cm. If the bicycle travels 92 km, how many rotations do the wheels make?
3. A wheel of radius 1.3 meters is accelerating at a rate of 12 rad/s^2 . At the moment that the wheel is rotating at 3.2 rad/s ,
 - (a) what is the magnitude of *tangential* acceleration at a point on the outside of the wheel?
 - (b) what is the magnitude of *radial* (centripetal) acceleration at a point on the outside of the wheel?
 - (c) what is the magnitude of the *total* acceleration at a point on the outside of the wheel?