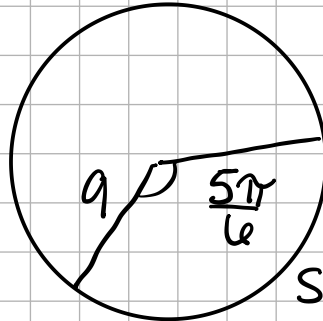


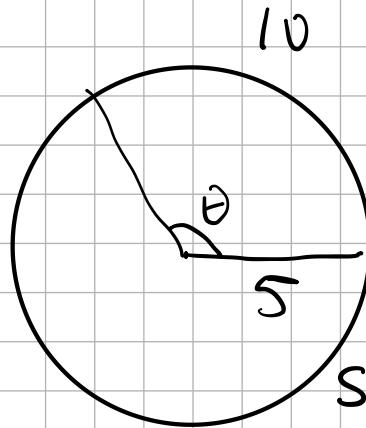
Name: _____ Date: 10/2/25

Session 7

1. Find the arc length

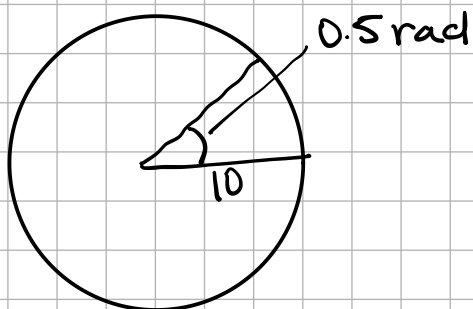


2. Find θ

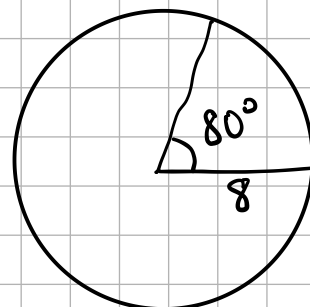


3. Find the area of the shaded region

a)



b)

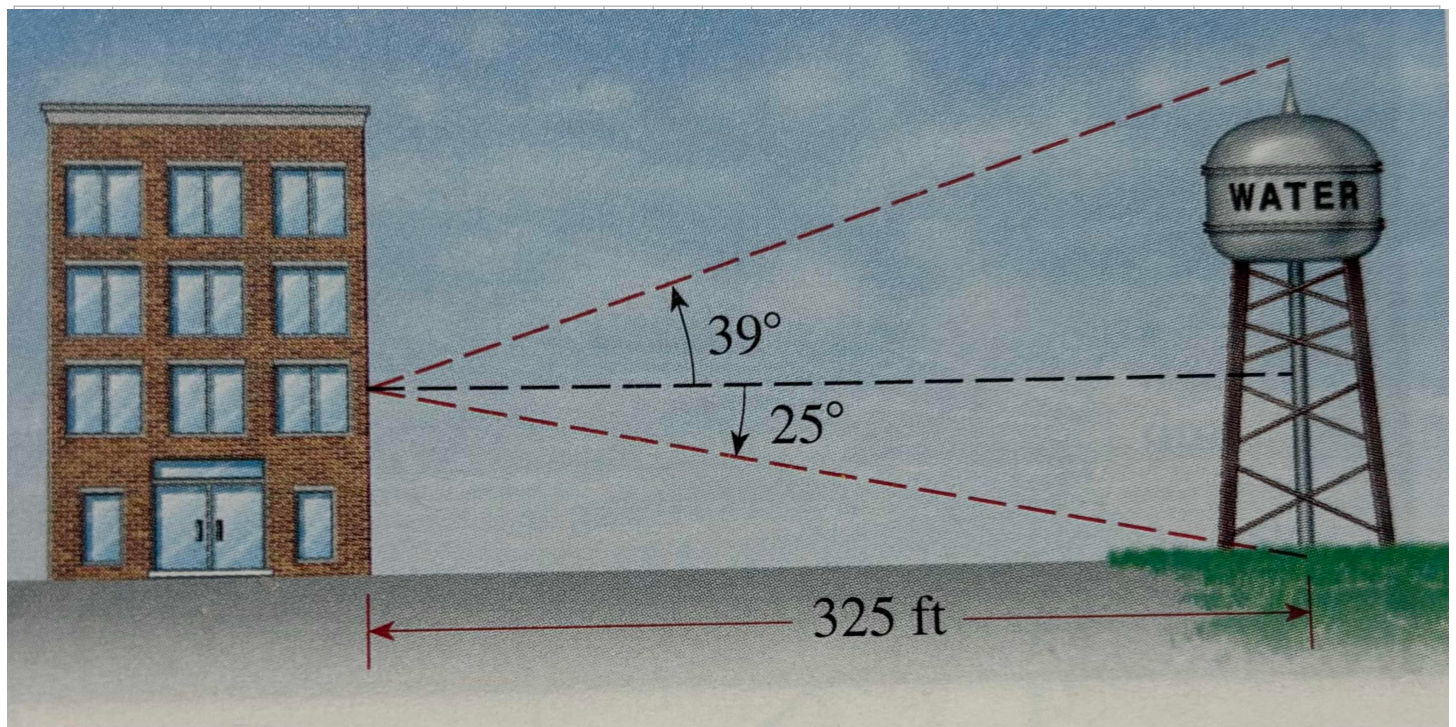


3. A ceiling fan with 16-inch blades rotates at 45 rpm.

a) Find the angular speed of the fan in rad/min

b) Find the linear speed of the tips of the blades in inches/min.

4. The top and bottom ends of a windshield wiper blade are 34 in. and 14 in., respectively from the pivot point. While in operation, the wipers sweep through 135° . Find the area swept by the blade.



5. A water tower is located 325 ft from a building (see the figure). From a window in the building, an observer notes that the angle of depression to the bottom of the tower is 25° , and the angle of elevation to the top is 39° . How tall is the tower? How high is the window?