

Name: _____

Lesson Guide

This lesson guide accompanies the following video lesson:

Arc Length and Sector Area Practice Problems

▶ Practice Problems

Use the arc length and sector area formulas to solve the following problems. Round your answer to the nearest hundredths decimal place. Draw a diagram to help you!

Formula Reference

Arc Length

$$\frac{\theta \cdot r}{180} \cdot \pi$$

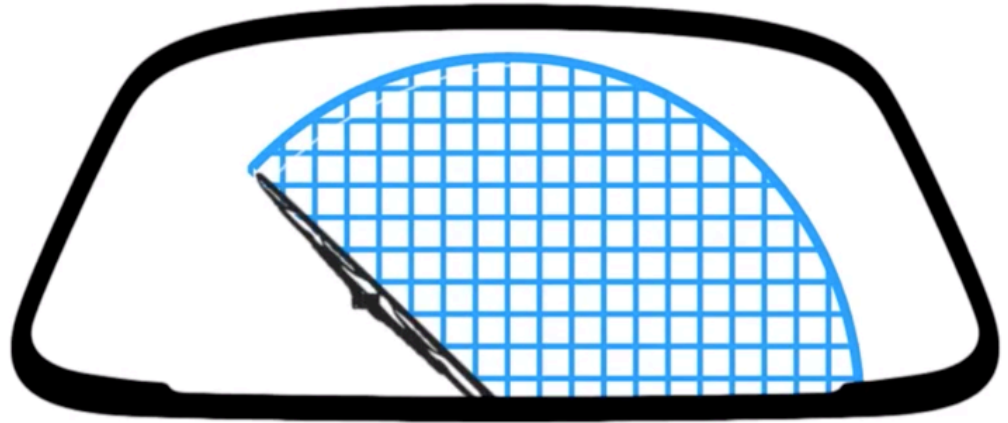
Sector Area

$$\frac{\theta \cdot r^2}{360} \cdot \pi$$



(1)

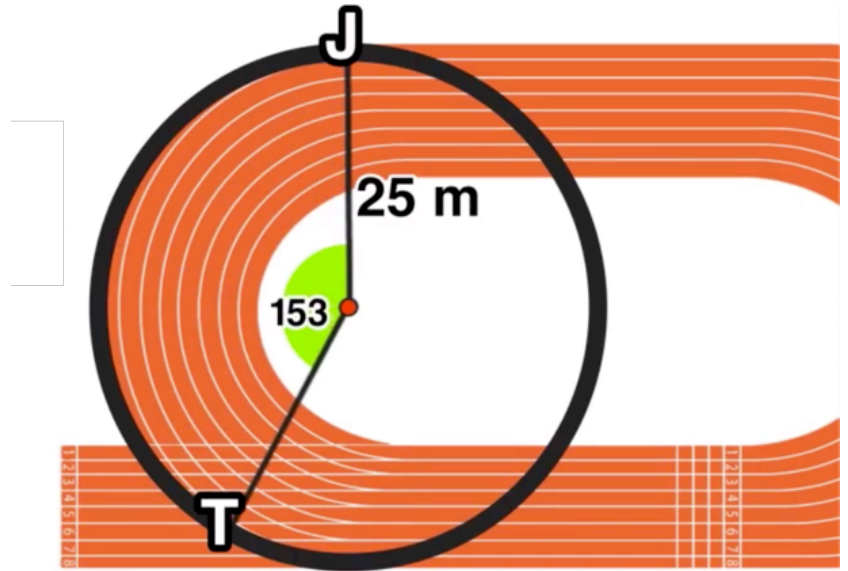
A 14.75 inch long windshield wiper blade starts at a horizontal resting position and swipes upward on an arc at an angle of 132° . How many square inches of the windshield's surface does the blade cover on any given swipe?



My Answer: _____

(2)

Tyler and Jordan are partners in a relay race on a curved track with a radius of 25 meters. If Jordan's location on the track is 153 degrees away from Tyler's, how much distance is between them on the track?



My Answer: _____

ANSWER KEY

1.) 250.6 square inches

2.) 66.8 meters