

Day 3: Radians & Degrees

Date _____

1) What is a Radian?

A great resource can be found here: <http://www.mathsisfun.com/geometry/radians.html>

Let's look!!

So how do we convert radians to degrees?

Another resource can be found here:

<http://www.mathwarehouse.com/trigonometry/radians/convert-degee-to-radians.php>

Since π radians = _____ then we can set up a proportion where:

Convert each degree measure into radians.

2) 210°

3) 230°

4) 120°

5) 135°

6) 225°

7) 270°

Convert each radian measure into degrees.

8) $\frac{7\pi}{12}$

9) $\frac{11\pi}{9}$

10) $\frac{31\pi}{18}$

11) $\frac{17\pi}{12}$

12) $\frac{5\pi}{12}$

13) $\frac{\pi}{3}$

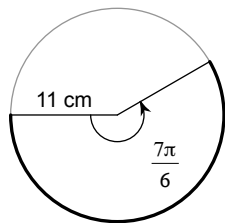
14) So now we can find Arc Length and Sector Area even if we are given the angle in radians.

How?

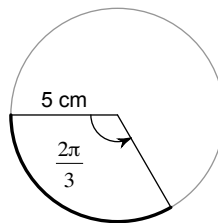
Convert the radians to degrees first, then solve like we did last class.

Find the length of each arc. Write solutions in exact and approximate forms.

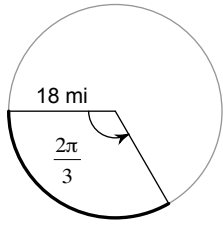
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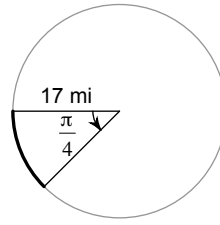
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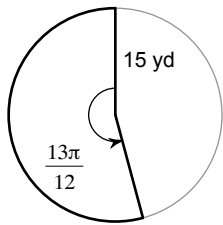


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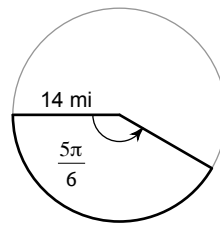


Find the area of each sector. Write solutions in exact and approximate forms.

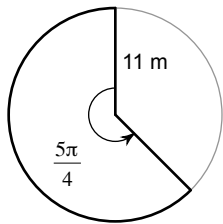
19)



20)



21)



22)

