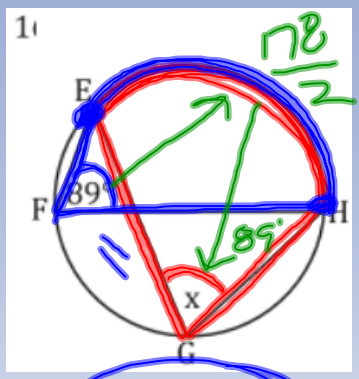
Welcome! Please grab your ISN and warmup and have a seat!

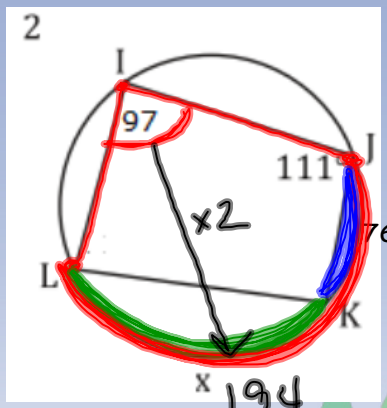
Find the missing measure.

1



178
2
89°
x=89°

2



194
−76
118°

Dec 2-8:10 AM

Circle Project

The Point You and your partner will apply your knowledge of the properties and formulas of circles to a "real life" representation.

The Procedure You and your partner will choose a "real life circle" (i.e. a hula hoop, steering wheel, car tire, etc.). You will measure and record (in whatever units you choose- in, ft, cm, m, etc.) the diameter, radius, area, and circumference of your circle. Then, **using a central angle of 72°,** you will find the arc length of the intercepted arc and area of the given sector.

The Presentation- On a half sheet of poster board, you will draw a replica of your object (you may also use a printed picture if you choose). You will label the radius, diameter, center, central angle, and intercepted arc on your picture. You will show your work for your circumference, area, arc length, and area of a sector.

The Pictures- You and your partner are required to take pictures of your actual circle object for this project. You also must have a picture of you measuring the diameter of your object. Pictures can either be printed and attached to the poster, or emailed to your teacher (email is available on the website.) ****these pictures will be showcased on the class website. If you do not want your face in the pictures, that is fine, just lay the measurement on the circle and step away. If emailing the pictures and you do not want your face shared, please state that you DO NOT want it showcased on the website****

Dec 2-8:18 AM

Requirements	Description	Points Possible
"Real life" Circle	Chooses an object that accurately represents a circle.	/5
Diameter/radius	Identified and accurately measures the diameter and radius. Shows measurements with proper units.	/10
Area	Correctly calculates area of the circle using correct measurements and units.	/10
Circumference	Correctly calculates circumference of the circle using correct measurements and units.	/10
Arc length	Correctly calculates arc length of the circle using correct measurements and units.	/10
Sector area	Correctly calculates are of a sector of the circle using correct measurements and units.	/10
Presentation	Poster includes accurate picture of object, correct labeling (including units) of diameter and radius. Also includes correct work for all 4 calculations. Poster is NEAT, ORGANIZED and CREATIVE.	/30
Pictures	Pictures of circular object and accurate measurement of the diameter have been emailed NO LATER THAN 9am on Wednesday, December 16th.	/5
Partner Grade	On a scale of 1 to 10, your partner rates your work and participation in this project. This grade is based on your peer assessment and teacher observation.	/10

DUE JAN. 20!!!!!!!!!!!!!!!

Dec 2-8:20 AM

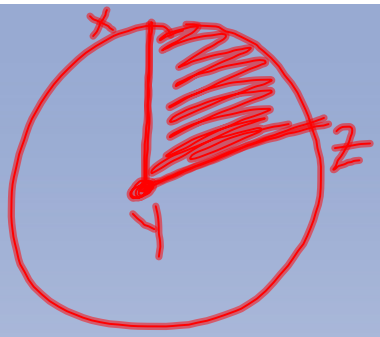
Pictures

Dec 2-8:22 AM

Example of finished project

Dec 2-9:35 AM

WWK



sector- portion of a circle between 2 radii - like a "pie piece"

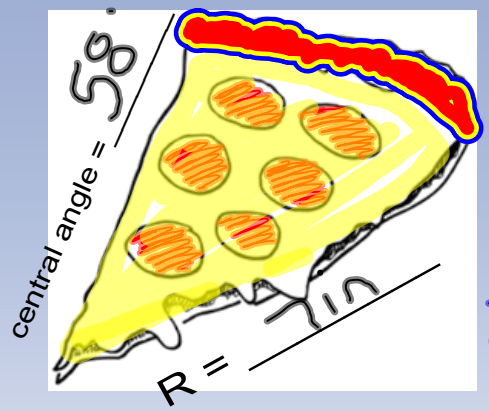
Dec 2-8:26 AM

TOC 61-62 Area of a Sector

Dec 1-4:18 PM

TOC 63-64 Area of a Sector

Area of a Sector



$$A = \frac{x}{360} \cdot \pi r^2$$

$$A = \frac{58}{360} \cdot \pi (7)^2$$

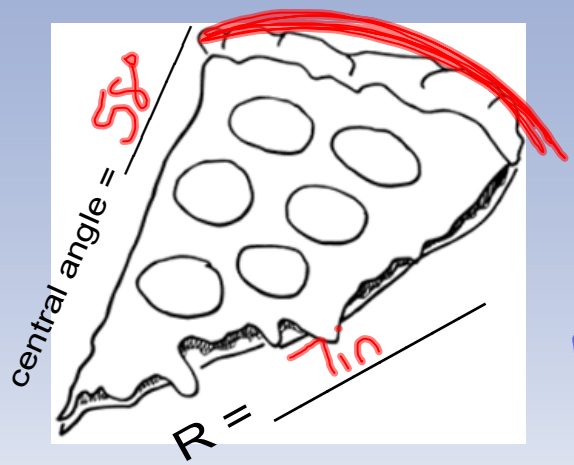
$\frac{n}{d} \Rightarrow \frac{58}{360} * 3.14 * 7^2 \rightarrow$

$A = 24.79\ in^2$

Dec 1-4:29 PM

TOC 63-64 Area of a Sector

Arc Length of the Sector



$$L = \frac{x}{360} \cdot 2\pi r$$

$$L = \frac{58}{360} \cdot 2\pi(7)$$

$$\boxed{L = 7.08 \text{ in}}$$

Dec 2-8:28 AM

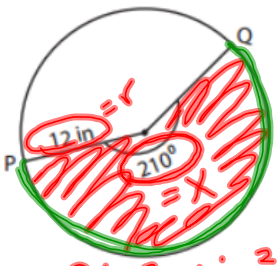
Examples pg (63)

$$A = \frac{x}{360} \cdot \pi r^2$$

$$L = \frac{x}{360} \cdot 2\pi r$$

Find the arc length and area of each sector.

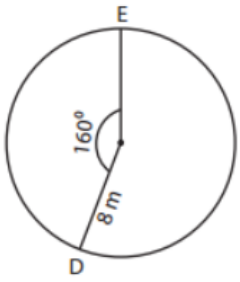
1)



$A = 263.76 \text{ in}^2$

$L = 43.96 \text{ in}$

2)



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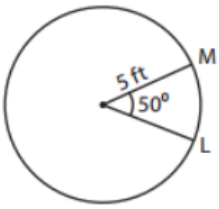

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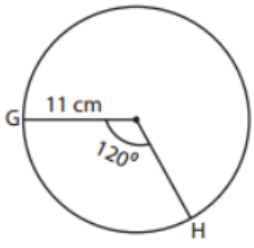


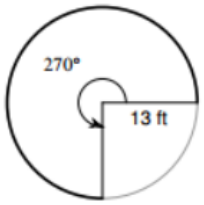
Dec 2-8:28 AM

Homework

Find the arc length and area of each sector.

1)

2)



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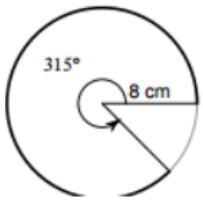

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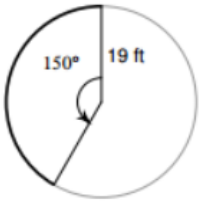

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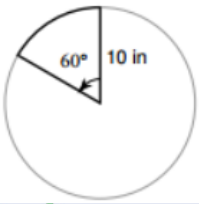

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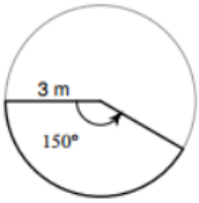

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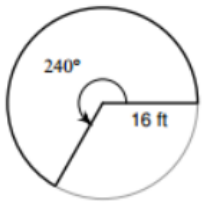


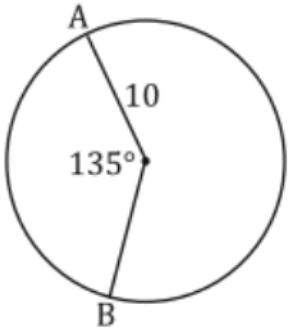
18)

Dec 2-8:33 AM

Welcome! Please grab your ISN and have a seat!

Calculate the length of each arc...and area

1.



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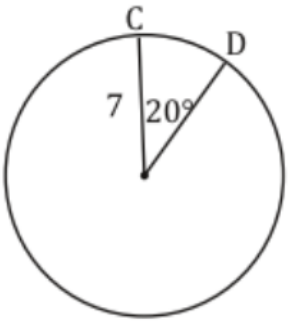

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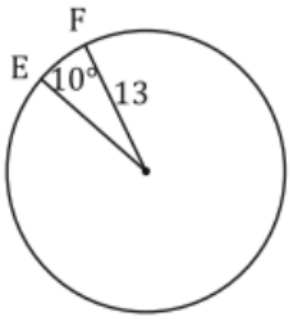
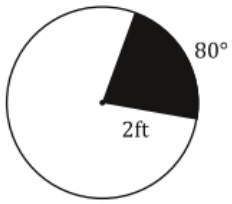


Dec 3-9:00 AM

Homework

Find the area of each shaded sector..and the arc length

9.



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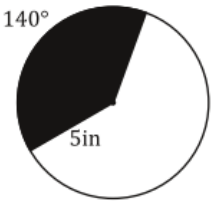

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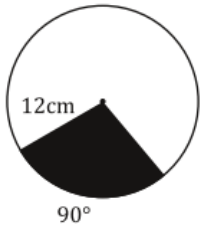

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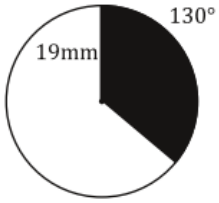

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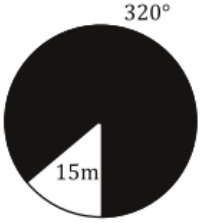

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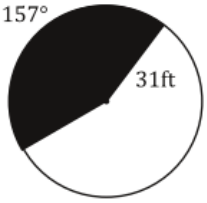

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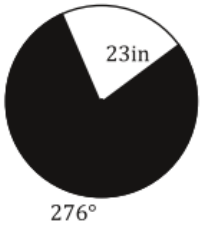

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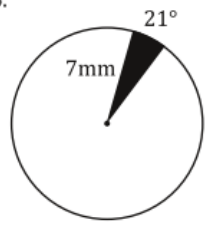


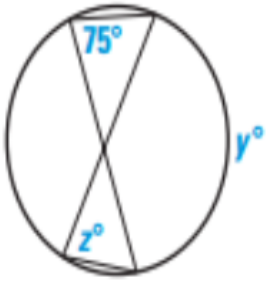
Dec 3-9:28 AM

Welcome! Please grab your ISN and warmup and have a seat!

Find the value of each variable.

6.

7.



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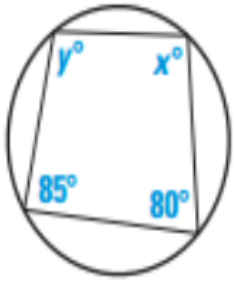

Dec 3-2:44 PM

Dec 4-8:41 AM

Dec 4-9:09 AM