Questions on 7.9 HW?

Apr 8-8:30 AM

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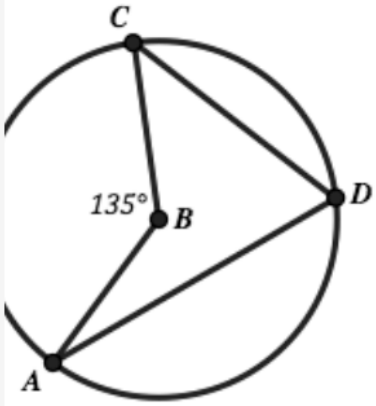
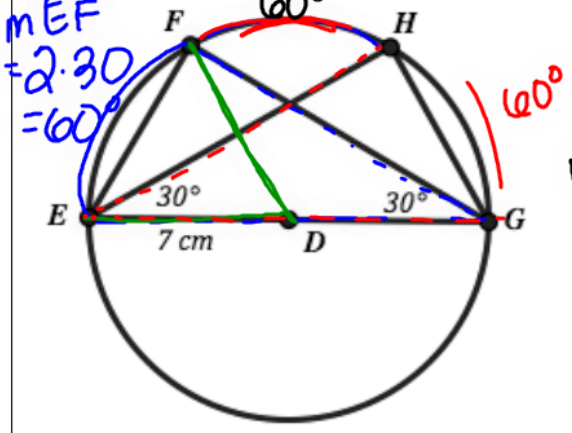
ı ⊙ B and marked angle measure.
∠ADC and find the measure of $\overset{\frown}{AC}$

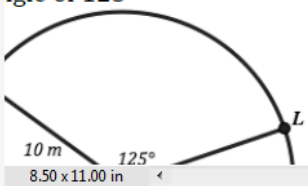


2. Given ⊙ D with marked radius.
Find the measure of $\overset{\frown}{FH}$ and find $m\overset{\frown}{EF}$.



180-60-60=
120-60=
60°
m FH =60°

ı ⊙ K and marked angle measure.
:he measure of the length of $\overset{\frown}{JL}$.
:he radian measure that goes with
ıgle of 125°



4. Given ⊙ K and marked angle measure.
Find the area of the small sector.
Find the arc length .

8.50 x 11.00 in

May 4-11:40 AM

D → R

$\cdot \frac{\pi \text{ rad}}{180^\circ}$

R → D

$\cdot \frac{180^\circ}{\pi \text{ rad}}$

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Convert each angle measure to radians or degrees based on what is given.

5. 100° = 1.745 Radians 6. 30° = Radians 7. 225° = Radians

$\frac{100^\circ}{1} \cdot \frac{\pi \text{ rad}}{180^\circ} = \frac{100\pi}{180}$ rad

8. $\frac{\pi}{3}$ Radians = 60 Degrees 9. 5π Radians = Degrees 10. $\frac{5\pi}{4}$ Radians = Degrees

$\frac{\pi}{3} \text{ rad} \cdot \frac{180^\circ}{\pi \text{ rad}} = \frac{180^\circ}{3}$

11. 270° = Radians 12. 90° = Radians 13. 150° = Radians

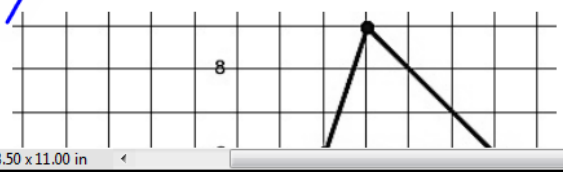
Go

Topic: Finding centers of rotation.

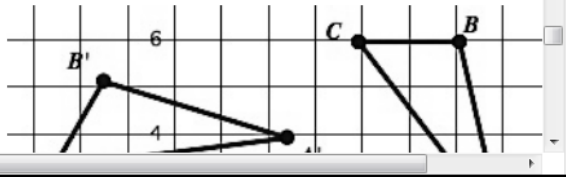
SKIP

Given the two figures below find the ~~center of~~ rotation that was used. Then use a compass to draw the concentric circles on which the vertex points of the triangle lie.

14.



15.



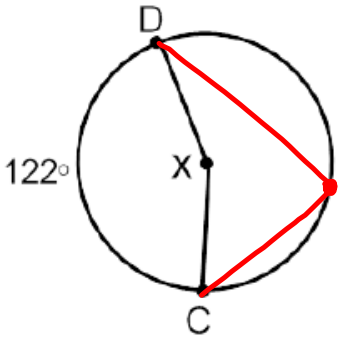
8.50 x 11.00 in

SECONDARY MATH II
Module 7 Test Review: Circles

Directions: Show ALL work. Round any decimals to one decimal place, unless otherwise stated.

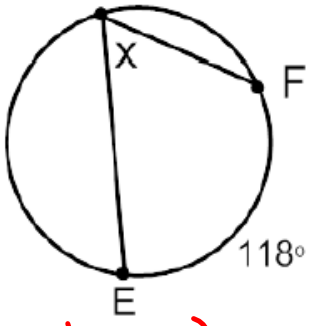
For 1-3: Determine what x equals in each circle below.

1.



X = 122°

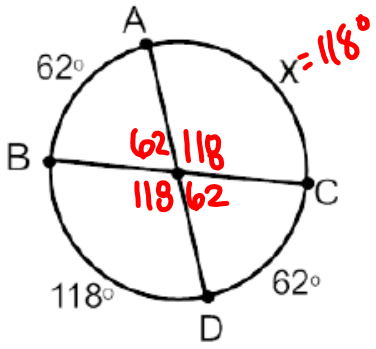
2.



$\frac{1}{2}(118)$

X = 59°

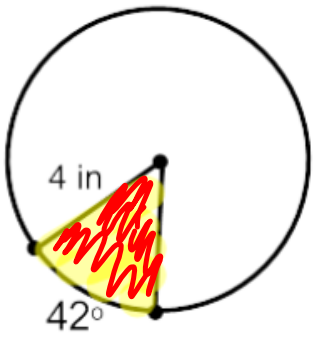
3.



X = 118°

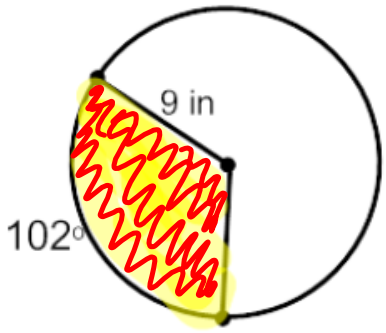
For 4-5: Find the area of the shaded sector below using the area of a sector formula, $A = \frac{\theta}{360}(\pi r^2)$.

4.



$\frac{42}{360}(\pi 4^2) = 5.9$ in

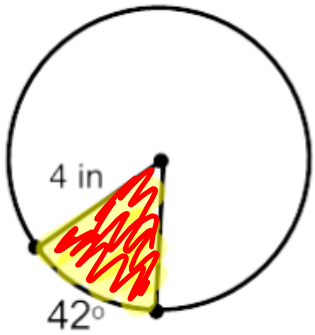
5.



$\frac{102}{360}(\pi 9^2) = 72.1$ in

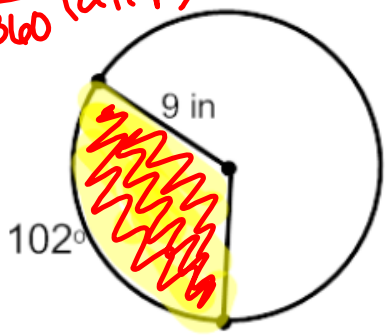
For 6-7: Find the arc length of the shaded sector below using the arc length formula, ~~$a = \frac{\theta}{360}(\pi r^2)$~~ $s = \frac{\theta}{360}(2\pi r)$

6.



$\frac{42}{360}(2\pi 4) = 2.9$ in

7.



$\frac{102}{360}(2\pi 9) = 16.0$ in or 16 in.

For 8-10: Convert each angle measure from degrees to radians. Round your answer to three decimal places if necessary. Use either $\frac{\pi}{180°}$ or $\frac{180°}{\pi}$ to convert.

8. $\frac{75°}{1} \cdot \frac{\pi \text{ rad}}{180°} =$

$\frac{75\pi}{180}$ rad = 1.309 radians

9. $\frac{112°}{1} \cdot \frac{\pi \text{ rad}}{180°} = \frac{112\pi}{180}$ rad

$= 1.955$ rad

10. $\frac{22°}{1} \cdot \frac{\pi \text{ rad}}{180°}$

$\frac{22\pi}{180}$ rad = 0.384 rad

For 11-13: Convert each angle measure from radians to degrees. Round your answer to one decimal place if necessary. Use either $\frac{\pi}{180°}$ or $\frac{180°}{\pi}$ to convert.

11. $\frac{\pi}{6} \cdot \frac{180°}{\pi \text{ rad}}$

$\frac{180°}{6} = 30°$

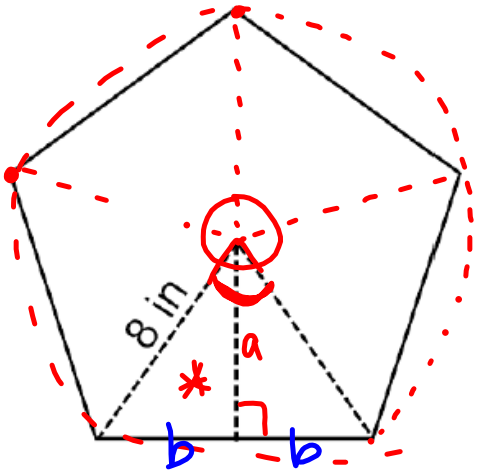
12. $\frac{2\pi}{3} \cdot \frac{180°}{\pi \text{ rad}}$

$\frac{2(180°)}{3} = 120°$

13. $\frac{\pi}{9} \cdot \frac{180°}{\pi \text{ rad}} =$

$\frac{180°}{9} = 20°$

For 14-15: Use the regular pentagon below to answer the questions.



Formulas:

Area of a regular polygon:

$A = \frac{1}{2}Pa$, *where*

P = *perimeter of polygon and*

a = *apothem*

$$sin\theta = \frac{opposite}{hypotenuse}$$

$$cos\theta = \frac{adjacent}{hypotenuse}$$

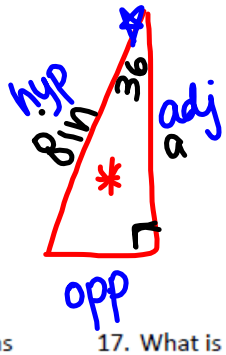
$$tan\theta = \frac{opposite}{adjacent}$$

Pythagorean Theorem: $a^2 + b^2 = c^2$

14. What is the measure of one of the 5 central angles of this regular pentagon?

$\frac{360°}{5} = 72°$

15. What is the measure of the apothem?



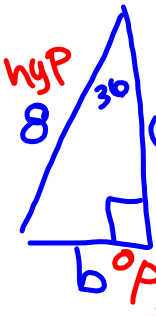
CAH

$8 \cdot \cos 36 = \frac{a}{8} \cdot 8$

$8 \cdot \cos 36 = a$

$6.5 = 6.47 = a$

16. What is the measure of one of the 5 side lengths of this regular pentagon?



SOH

$\sin 36 = \frac{b}{8} \cdot 8$

$8 \cdot \sin 36 = b$

$4.7 = b$

side length is $2 \cdot b = 2(4.7) = 9.4$ in

17. What is the Perimeter of this regular pentagon?

$P = 5(9.4)$

$P = 47$ in

18. What is the area of this regular pentagon?

$A = \frac{1}{2} \cdot P \cdot a$

$A = \frac{1}{2} \cdot 47(6.5)$

$A = 152.75$

$A = 152.8 in^2$

Homework

Study for Module 7 Test

Mar 28-9:36 AM