

Questions on 7.4 HW?

SM2 - Module 7 SE.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools SM2 - Module 7 SE... x

24 / 57 125%

©2013 www.flickr.com/photos/jill.kemerer

Ready
Topic: Radius and Area or Circumference

Given the area or circumference or radius find the other two.

1. Radius = 1 m
Area =
Circumference =

2. Radius = 3 ft
Area = $9\pi \text{ ft}^2$
Circumference = $6\pi \text{ ft}$

3. Radius =
Area =
Circumference = $8\pi \text{ yds}$

4. R =
A = 3.14 m^2
C =

5. R = 7 miles
A =
C =

6. R =
A =
C = $81\pi \text{ in}^2$

$A = \pi r^2$
 $C = 2\pi r \text{ or } \pi d$

$A = \frac{9\pi}{\pi} = \frac{\pi r^2}{\pi}$
 $\sqrt{9} = \sqrt{r^2}$
 $3 = r$

$C = 2\pi 3$
 $C = 6\pi$

$A = \pi$

Set
Topic: Finding area and perimeter of regular polygons.

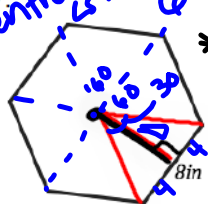
For each of the regular polygons find the measure of the interior angle, the perimeter and the area.

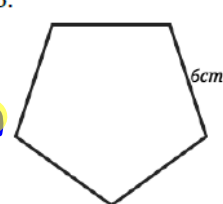
8.50 x 11.00 in

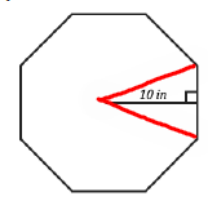
Set
Topic: Finding area and perimeter of regular polygons.

Area of a regular polygon:
 $A = \frac{1}{2} \cdot P \cdot a$
 p = perimeter
 a = apothem
 center to a side length makes right angle w/ side.

For each of the regular polygons find the measure of the interior angle, the perimeter and the area.

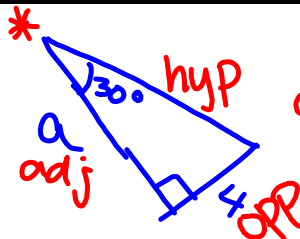
7. 
 * Central \angle : $\frac{360}{6} = 60^\circ$
 * $720 \div 6 = 120^\circ$
 * a. Measure of one interior angle: $180(6-2) = 180(4) = 720^\circ$
 * b. Perimeter: $6 \cdot 6 = 48 \text{ in}$
 * c. Area: $\frac{1}{2}(48)(6.92) = 166.08 \text{ in}^2$

8. 
 a. Measure of one interior angle:
 b. Perimeter:
 c. Area:

9. 
 a. Measure of one interior angle:
 b. Perimeter:
 c. Area:

10. A regular polygon with 14 sides. And one side equal to 6 inches.
 a. Measure of one interior angle:
 b. Perimeter:
 c. Area:

© 2013 MATHEMATICS VISION PROJECT | MVP
 In partnership with the Utah State Office of Education



TOA
 $a \cdot \tan 30 = \frac{4}{a}$

$\frac{a \cdot \tan 30 = 4}{\tan 30} \quad \frac{4}{\tan 30}$

$a = \frac{4}{\tan 30}$

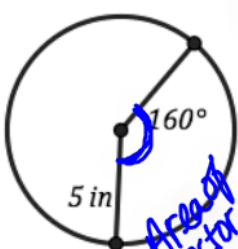
$a = 6.92$

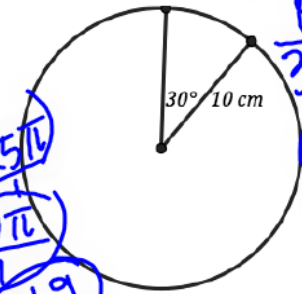
SOH
 CAH
 TOA

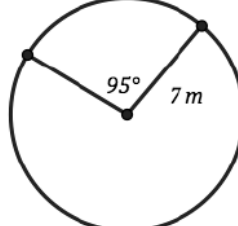
Sum of interior \angle s in a polygon:
 $180(n-2)$
 where $n = \#$ of sides

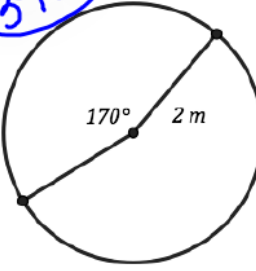
SM2 - Module 7 SE.pdf - Adobe Acrobat Reader DC
 File Edit View Window Help
 Home Tools SM2 - Module 7 SE... x
 25 / 57 125%

Find the area of the sector indicated with the angle measure.

13.  *Area of Sector: $A = \pi r^2$
 $A = \pi 5^2$
 $A = 25\pi$
 $\frac{160}{360} (25\pi)$*

14.  *Area of Sector: $\frac{\theta}{360} (\pi r^2) = S$
 θ is angle
 r = radius
 $\frac{4}{9} (25\pi)$
 $= \frac{100\pi}{9}$
 ≈ 34.9*

15. 

16. 

Need Assistance? Check out these additional resources:
<http://www.regentsprep.org/regents/math/geometry/GP14/CircleSectors.htm>

© 2013 MATHEMATICS VISION PROJECT | MVP
 In partnership with the Utah State Office of Education

8.50 x 11.00 in

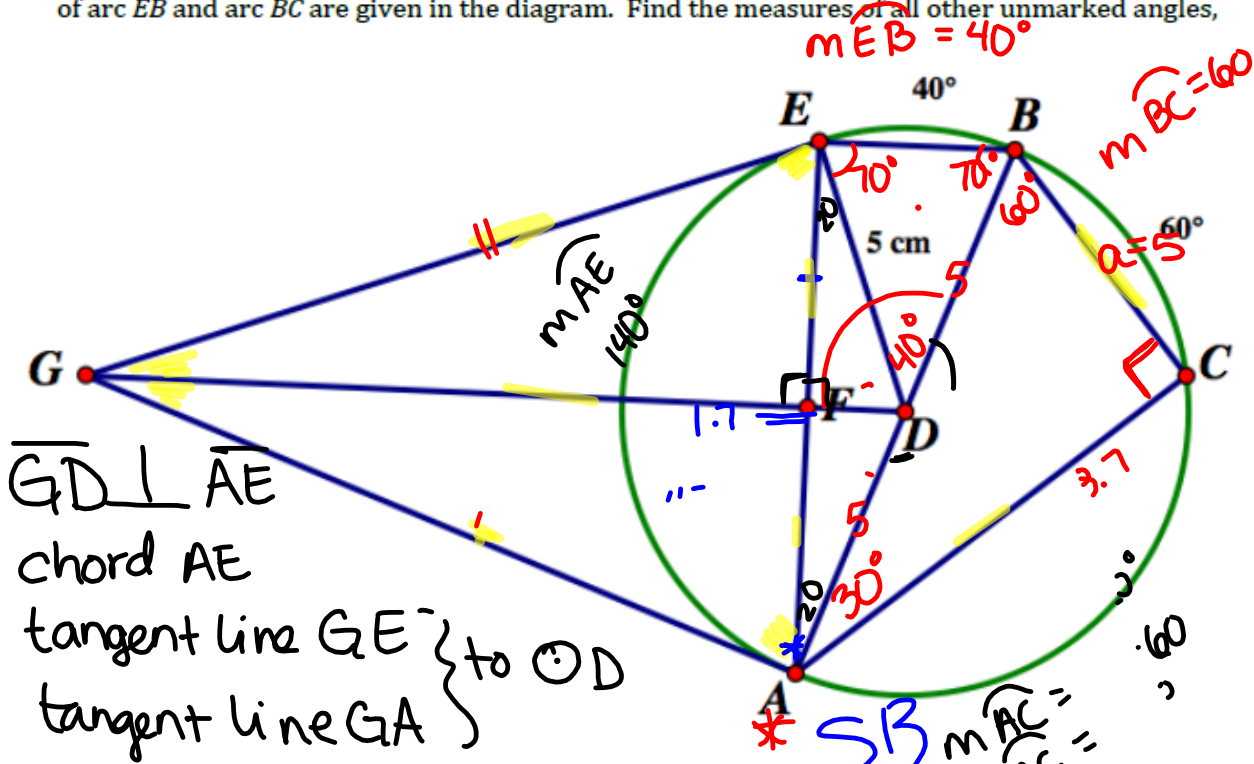
7.6 Circular Reasoning

A Practice Understanding Task

The following problems will draw upon your knowledge of similarity, circle relationships and trigonometry.



In the following diagram the radius of $\odot D$ is 5 cm and F is the midpoint of \overline{AE} . The measures of arc EB and arc BC are given in the diagram. Find the measures of all other unmarked angles,



$\overline{GD} \perp \overline{AE}$
 chord \overline{AE}
 tangent line \overline{GE}
 tangent line \overline{GA} } to $\odot D$

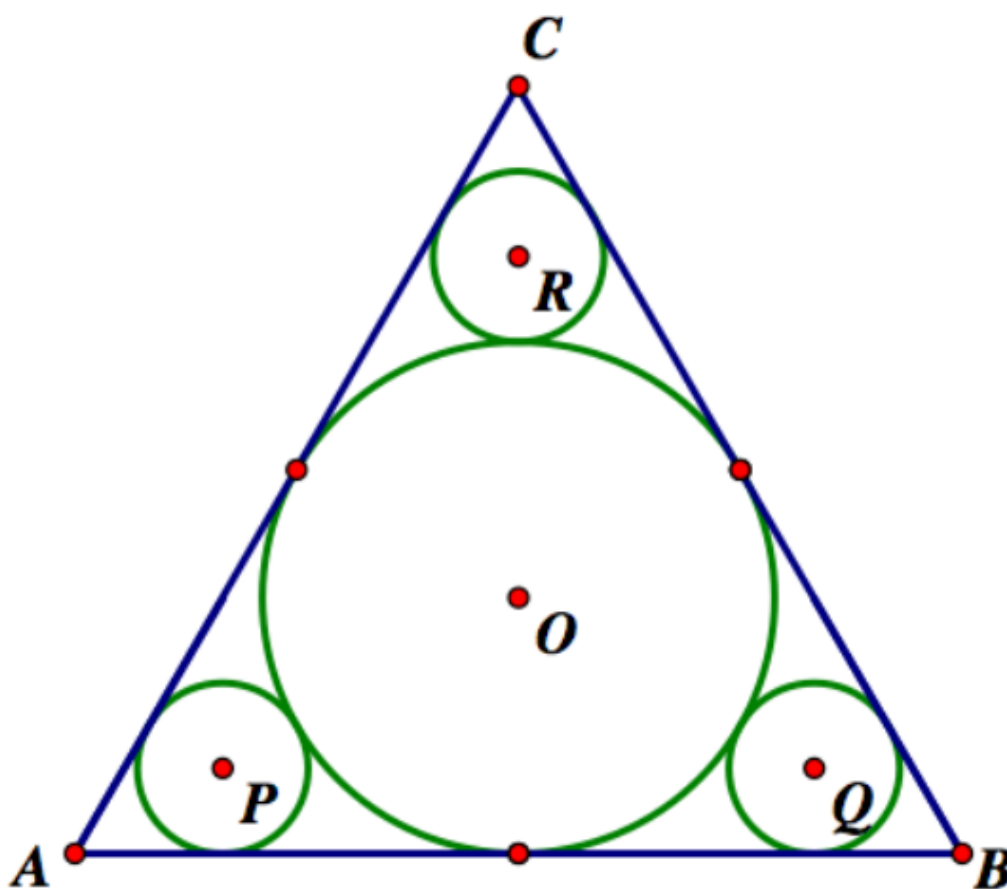
ΔABC
 $\frac{SOH}{SOH}$
 $10 \cdot \sin 30 = \frac{a}{10}$
 $10 \cdot \sin 30 = a$
 $5 = a$

$\tan 30 = \frac{5}{b}$ $\cos 30 = \frac{b}{10}$
 $10 \cdot \cos 30 = b$
 $8.7 = b$

ΔFDA
 $\frac{SOH}{SOH}$
 $5 \cdot \sin 20 = \frac{x}{5}$
 $5 \sin 20 = x$
 $1.7 = x$

CAH
 $5 \cdot \cos 20 = \frac{y}{5}$
 $5 \cdot \cos 20 = y$
 $4.7 = y$

In the diagram below $\triangle ABC$ is equilateral. All circles are tangent to each other and to the sides of the equilateral triangle. The radius of the three smaller circles, $\odot P$, $\odot Q$ and $\odot R$, is 4 cm. The radius of $\odot O$ is not given. Find the circumference and area of each circle and the length of the sides of the equilateral triangle.



Homework

Finish 7.6 "Ready, Set, Go"