

Honors Geometry Chapter 9 Review

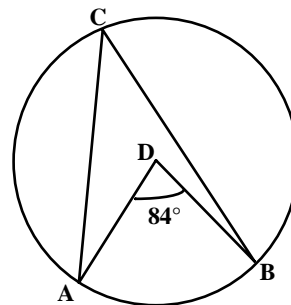
Things to study:

- know how to identify a chord, secant, tangent, minor arc, major arc, inscribed angle, central angle, etc... (all the ones we learned)
- review all warm up problems
- look over problems on p.359 WE 1-10, p.364 WE 1-9, Chapter Review & Chapter Test problems on p.369-371

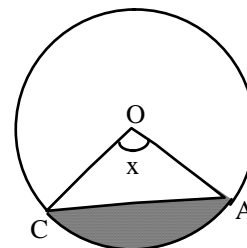
Sample Problems

1. In the circle at right, point D is the center.

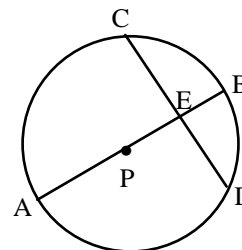
- a) Name a central angle.
- b) Name an inscribed angle.
- c) What is $m \text{ arc } \overset{\frown}{AB}$?
- d) What is $m \text{ arc } \overset{\frown}{ACB}$?
- e) What is $m \angle ACB$?



2. Find the area of the shaded region if \overline{OC} is a radius of length 10 and $x = 60^\circ$.

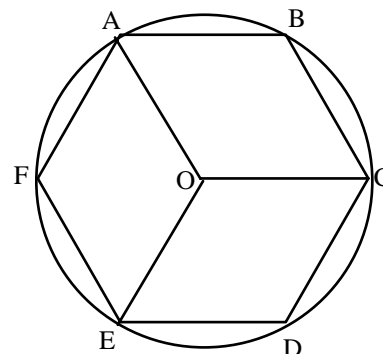


3. \overline{AB} is a diameter of $\odot P$,
 $AB = 11$, $m \text{ arc } \overset{\frown}{CB} = 15^\circ$, $\overline{CE} \cong \overline{ED}$.
 Calculate the lengths of \overline{CE} and \overline{EB} .

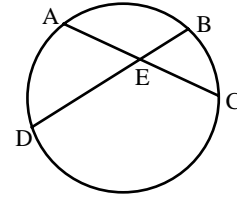


4. Regular hexagon ABCDEF is inscribed in $\odot O$, and $AB = 8$ cm. Find each of the following:

- a) $m \angle AOC$
- b) $m \text{ arc } \overset{\frown}{AB}$
- c) $m \text{ arc } \overset{\frown}{ACE}$
- d) $m \text{ arc } \overset{\frown}{ABC}$
- e) $m \angle AFE$



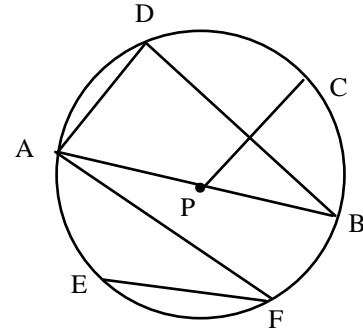
5. If $AE = 8$, $EB = 6$, and $EC = 3$, what is the length of ED ?



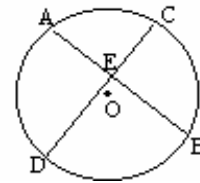
6. In $\odot P$, \overline{AB} is a diameter, $m\angle DAB = 65^\circ$, $\overline{AB} \parallel \overline{EF}$, and

$m\angle EFB = 88^\circ$. Find each of the following:

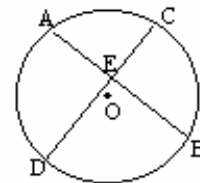
- a) $m\text{ arc } \overset{\frown}{FB}$
- b) $m\angle BAF$
- c) $m\text{ arc } \overset{\frown}{AE}$
- d) $m\text{ arc } \overset{\frown}{AD}$
- e) $m\text{ arc } \overset{\frown}{DCB}$
- f) $m\angle ADB$



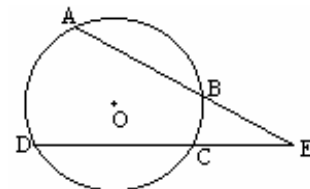
7. In the figure at right, $m\overset{\frown}{AD} = 84$ and $m\overset{\frown}{BC} = 62$. What is $m\angle AED$? Justify your answer.



8. In the figure at right, $m\overset{\frown}{AD} = 91$ and $m\angle AEC = 97$. What is $m\overset{\frown}{BD}$? Justify your answer.

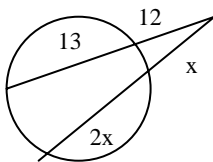


9. In the figure at right, $m\overset{\frown}{AD} = 113$ and $m\overset{\frown}{BC} = 48$. What is $m\angle AED$? Prove your answer.

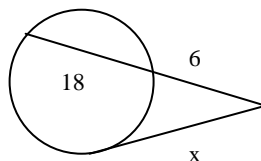


Find the value of x .

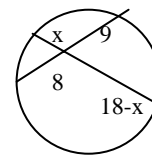
10.



11.



12.



11. Proof... Listen to example in class.

Answers:

1. a) $\angle ADB$ b) $\angle ACB$ c) 84° d) 276° e) 42°

2. 9.06 sq units

3. $CE \approx 1.4235$, $EB \approx .1874$

4. a) 120° b) 60° c) 240° d) 120° e) 120°

5. 4

6. a) 46° b) 23° c) 46° d) 50° e) 130° f) 90°

7. 73°

8. 103°

9. 32.5°

10. 10

11. 12

12. 6 or 12