

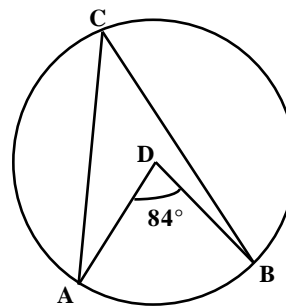
Honors Geometry- BI Chapter 10 Review

Things to study:

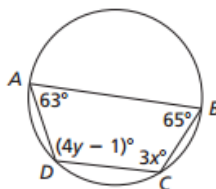
- know how to identify a chord, secant, tangent, minor arc, major arc, inscribed angle, central angle, etc... (all the ones we learned)
- review all warm up problems

Sample Problems

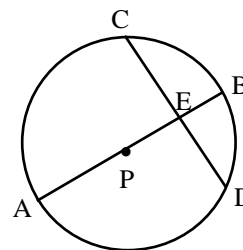
1. In the circle at right, point D is the center.
 - a) Name a central angle.
 - b) Name an inscribed angle.
 - c) What is $m \text{ arc } AB$?
 - d) What is $m \text{ arc } ACB$?
 - e) What is $m \angle ACB$?



2. Solve for x and y.

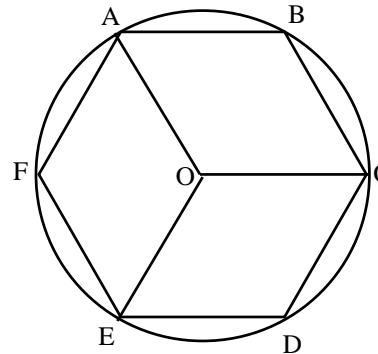


3. \overline{AB} is a diameter of $\odot P$,
 $AB = 11$, $m \text{ arc } CB = 15^\circ$, $\overline{CE} \cong \overline{ED}$.
 Calculate the lengths of \overline{CE} and \overline{EB} .

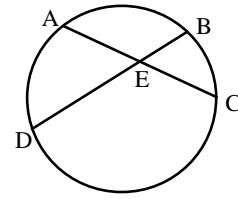


4. Regular hexagon ABCDEF is inscribed in $\odot O$, and $AB = 8$ cm. Find each of the following:

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

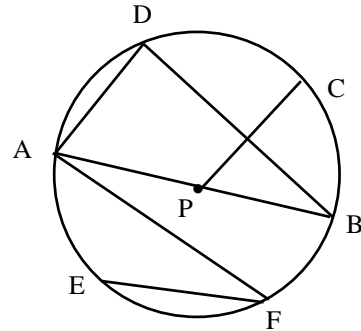


5. If $AE = 8$, $EB = 6$, and $EC = 3$, what is the length of ED ?

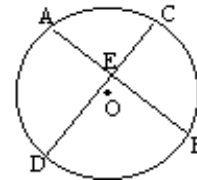


6. In $\odot P$, \overline{AB} is a diameter, $m\angle DAB = 65^\circ$, $\overline{AB} \parallel \overline{EF}$, and $m\angle EFB = 88^\circ$. Find each of the following:

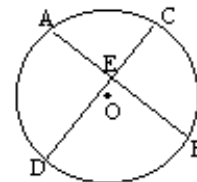
- a) m arc FB
- b) $m\angle BAF$
- c) m arc AE
- d) m arc AD
- e) m arc DCB
- f) $m\angle ADB$



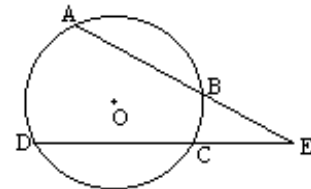
7. In the figure at right, $m\angle AD = 84$ and $m\angle BC = 62$. What is $m\angle AED$? Justify your answer.



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

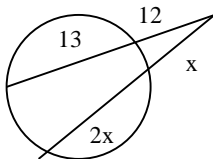


9. In the figure at right, $m\angle AD = 113$ and $m\angle BC = 48$. What is $m\angle AED$? Prove your answer.

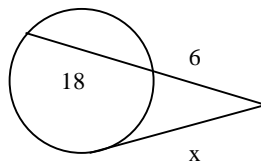


Find the value of x .

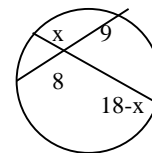
10.



11.



12.



13. Write the equation of a circle whose center is $(4, -1)$ and passes through $(5, 8)$.

Answers:

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

2. $x = 39$, $y = 29$

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

13. $(x - 4)^2 + (y + 1)^2 = 82$