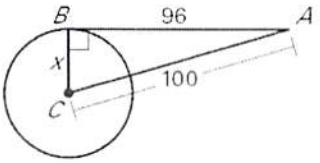
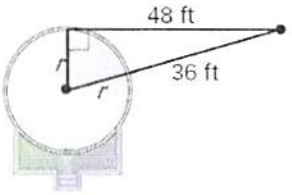
1) What is x?



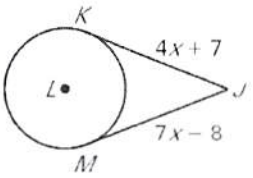
X=28 units

2) Swimming Pool You are standing 36 feet from a circular swimming pool. The distance from you to a point of tangency on the pool is 48 feet as shown. What is the radius of the pool?



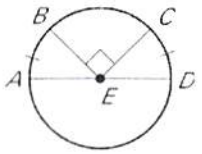
r = 14 ft

3) Find x.



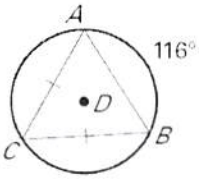
X=5

4) What is $m\widehat{DAB}$?



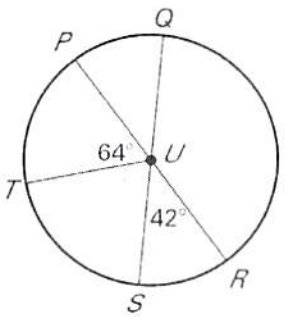
$m\widehat{DAB}$ = 225°

5) Find $m\widehat{BC}$.



$m\widehat{BC}$ = 122°

Use ⊙F for #6-14 to determine whether the given arc is a minor arc, major arc, or semicircle. Then, give the measure of the arc.



6) $m\widehat{PQ}$
42°

7) $m\widehat{ST}$
74°

8) $m\widehat{TPS}$
286°

9) $m\widehat{RT}$
116°

10) $m\widehat{RQS}$
318°

11) $m\widehat{QR}$
138°

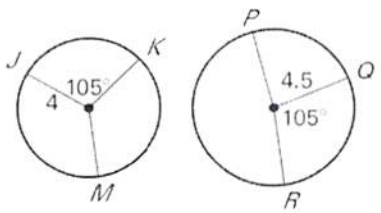
12) $m\widehat{PQS}$
222°

13) $m\widehat{TQR}$
244°

14) $m\widehat{PS}$
138°

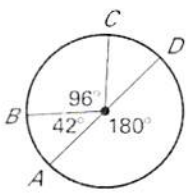
In 15 – 16, determine whether the given arcs are congruent.

15) $\widehat{JK}$ and $\widehat{QR}$



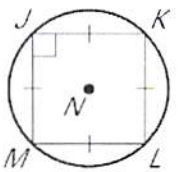
no

16) $\widehat{AB}$ and $\widehat{CD}$



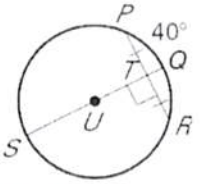
yes

17) Find $m\widehat{LM}$.



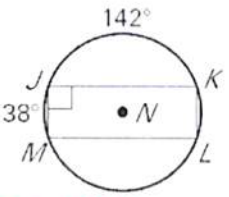
$m\widehat{LM}$ = 90°

18) Find $m\widehat{PQR}$.



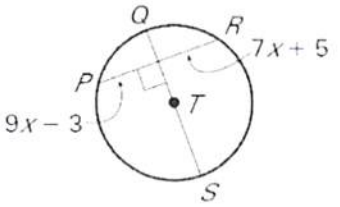
$m\widehat{PQR} = 80°$

19) Find $m\widehat{KLM}$.



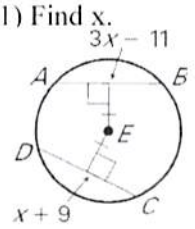
$m\widehat{KLM} = 180°$

20) Find x.



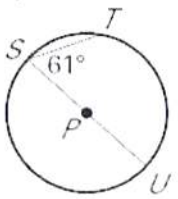
$x = 4$

21) Find x.



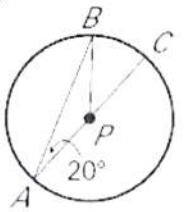
$x = 10$

22) Find $m\widehat{ST}$.



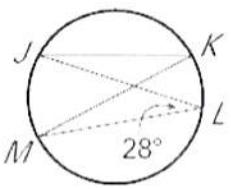
$m\widehat{ST} = 58°$

23) Find $m\widehat{AB}$.



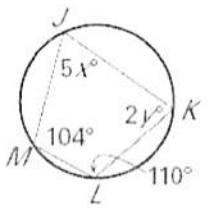
$m\widehat{AB} = 140°$

24) m∠K



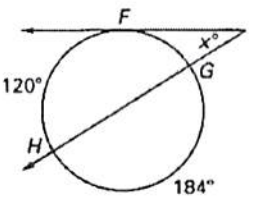
$m\angle K = 28°$

25) What is x and y?



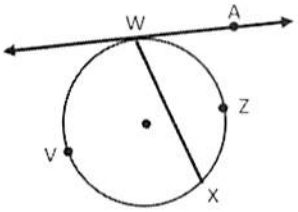
$x = 14$
$y = 38$

26) What is x?



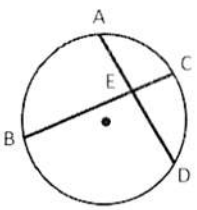
$x = 32°$

27) If $\overleftrightarrow{WA}$ is tangent to the circle at point W and $m\widehat{WVX} = 268°$, find $m\angle AWX$



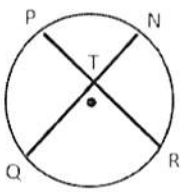
$m\angle AWX = 46°$

28) If $m\angle AEC = 110°$ and $m\widehat{AC} = 75°$, find $m\widehat{BD}$.



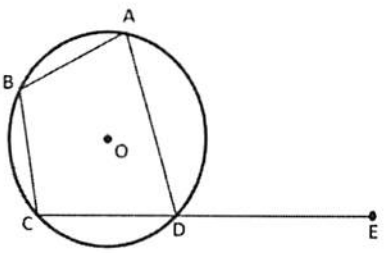
$m\widehat{BD} = 145°$

29) If $m\widehat{PN} = (x^2)°$, $m\widehat{QR} = (11x)°$ and $m\angle PTN = (9x+4)°$, find the value of x.



$x = 8$

30) Given: Quadrilateral ABCD is inscribed in Circle O.
Prove: $\angle B \cong \angle ADE$



Statements	reasons
1) Quadrilateral ABCD is inscribed in ⊙O	1) Given
2) $\angle B$ & $\angle CDA$ are supp.	2) Quad. inscr. ⊙ → opp ∠'s supp.
3) $m\angle B + m\angle CDA = 180$	3) def. supp ∠'s
4) $\angle CDA$ & $\angle ADE$ are supp.	4) def. linear pr / Lin. Pr thm
5) $m\angle CDA + m\angle ADE = 180$	5) def. supp ∠'s
6) $m\angle B + m\angle CDA = m\angle CDA + m\angle ADE$	6) Subst.
7) $m\angle B = m\angle ADE$	7) subt. prop.
8) $\angle B \cong \angle ADE$	8) def. $\cong$ ∠'s