

10.1 - 10.5 Quiz Review CYU

Use when you get it right all by yourself

**S** Use when you did it all by yourself, but made a silly mistake

**H** Use when you could do it alone with a little help from teacher or peer

**G** Use when you completed the problem in a group

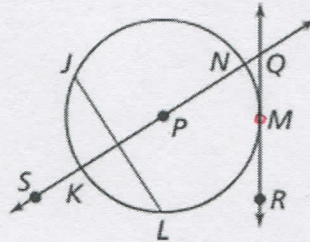
**X** Use when a question was attempted but wrong (get help)

**N** Use when a question was not even attempted

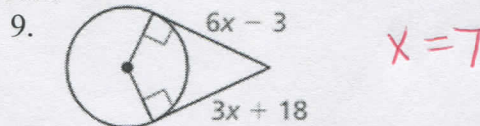
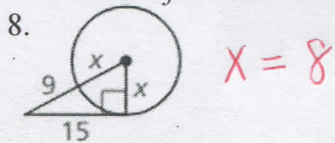
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Vocabulary terms & proper notation	1 - 7		
Tangent Line to a Circle Theorem	8		30
External Tangent Congruence Theorem	9		
Minor arcs, Major arcs, & Semicircles	10, 15	16, 17	18, 19, 23, 24, 33, 34
Central angles	10, 15	16, 17	31
Congruent Arcs	11, 12		
Chord Rules (all three from 10.3)	13	14	
Inscribed Angles & Polygons (10.4)	20 - 22	25 - 32	35 - 57
Angle Relationships in Circles (10.5)		35 - 43	44 - 57

Use the diagram to name, using proper notation, an answer for the following terms.

1. the circle  $\odot P$
2. a radius  $\overline{PK}$  or  $\overline{PN}$
3. a diameter  $\overline{NK}$
4. a chord  $\overline{JL}$  or  $\overline{NK}$
5. a secant  $\overleftrightarrow{QS}$
6. a tangent  $\overleftrightarrow{QM}$
7. point of tangency  $M$



Find the value of  $x$ . Show all work for full credit.



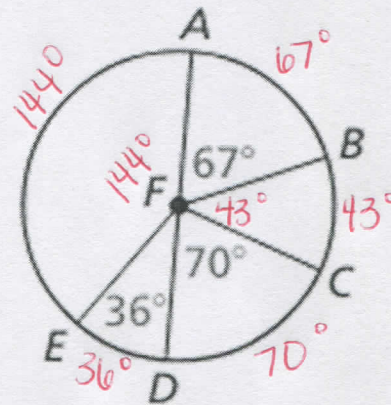
10. Complete the rest of the circle. Fill in missing angles and arc measures. Then list two minor arcs and two major arcs, and a semicircle.

more answers exist

minor arcs:  $\widehat{AE}$ ,  $\widehat{AC}$ ,  $\widehat{BC}$

major arcs:  $\widehat{ACE}$ ,  $\widehat{ADB}$

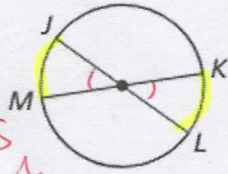
Semicircle:  $\widehat{AED}$ ,  $\widehat{DCA}$



Explain in words whether the arcs are congruent or not. Justify your answer.

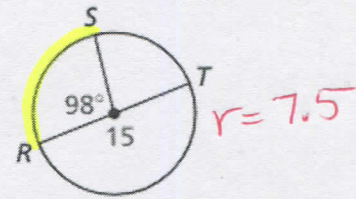
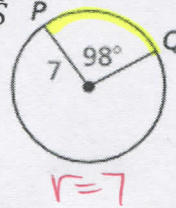
11.  $\widehat{JM}$  &  $\widehat{KL}$

$m\widehat{JM} = m\widehat{KL}$   
Def of vertical  $\times$ 's  
Yes  $\cong$



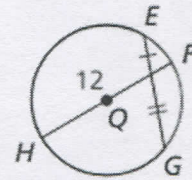
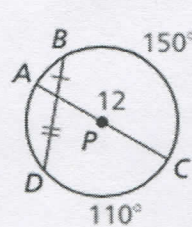
12.  $\widehat{PQ}$  &  $\widehat{RS}$

$\neq$   
O's not  $\cong$



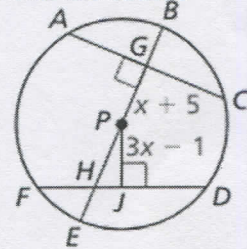
13. Find  $m\widehat{EG}$ .

$100^\circ$



14. In the diagram,  $AC = FD = 30$ ft,  $PG = (x + 5)$  ft, and  $PJ = (3x - 1)$  ft. Find the radius of circle P.

$PB = PE = 17$  ft



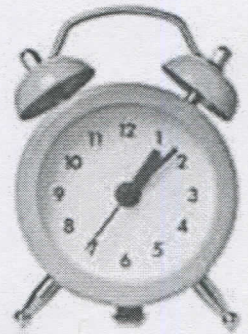
A circular clock can be divided into 12 congruent sections.

15. Find the measure of each arc in this circle.

$30^\circ$

16. Find the measure of the minor arc formed by the hour and minute hands when the time is 7:00.

$150^\circ$



17. Find a time at which the hour and minute hands form an arc that is congruent to the arc in part (b).

possible answer 5:00

In  $\odot P$ ,  $m\widehat{AB} = 70^\circ$ ,  $m\widehat{AE} = 80^\circ$ ,  $m\widehat{ED} = 150^\circ$ ,  $m\angle BFH = 55^\circ$ . Find the following measures.

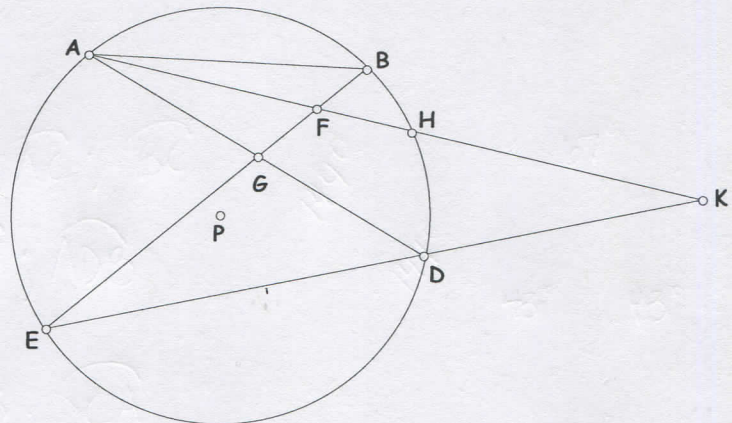
18.  $m\widehat{BH} = 30^\circ$

19.  $m\widehat{HD} = 30^\circ$

20.  $m\angle AGE = 70^\circ$

21.  $m\angle DGE = 110^\circ$

22.  $m\angle ADK = 140^\circ$



In  $\odot P$ ,  $\overleftrightarrow{AS}$  and  $\overleftrightarrow{AM}$  are tangents;  $\overline{TR}$  is a diameter;  $m\widehat{TB} = 20^\circ$ ,  $m\widehat{MG} = 60^\circ$ ,  $m\widehat{GR} = 65^\circ$ ,  $m\widehat{RS} = 125^\circ$ . Find the following measures.

23.  $m\widehat{BM} = \underline{35^\circ}$

24.  $m\widehat{ST} = \underline{55^\circ}$

25.  $m\angle 1 = \underline{62.5^\circ}$

26.  $m\angle 2 = \underline{12.5^\circ}$

27.  $m\angle 3 = \underline{22.5^\circ}$

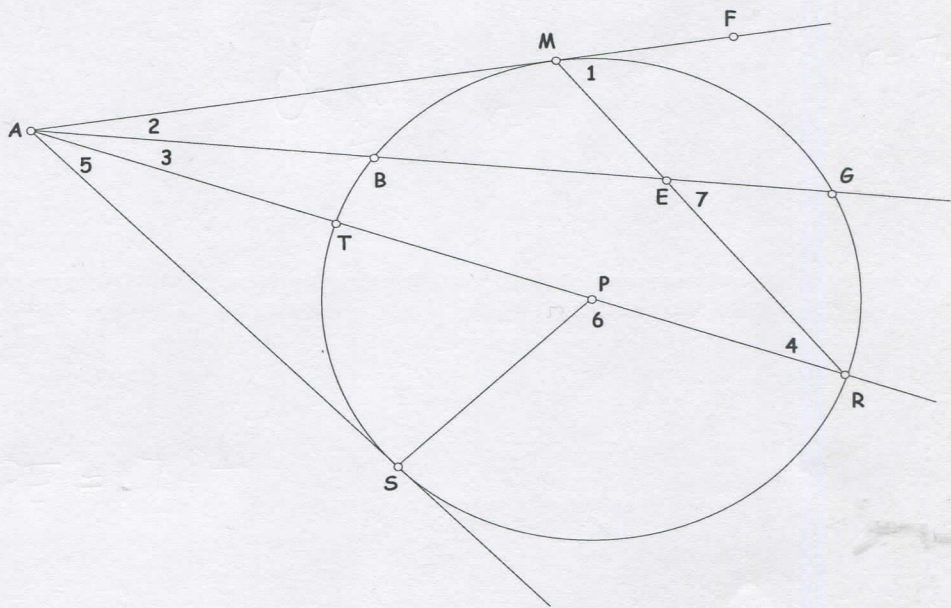
28.  $m\angle ASP = \underline{90^\circ}$

29.  $m\angle 4 = \underline{27.5^\circ}$

30.  $m\angle 5 = \underline{35^\circ}$

31.  $m\angle 6 = \underline{125^\circ}$

32.  $m\angle 7 = \underline{50^\circ}$



In  $\odot O$ ,  $\overleftrightarrow{EF}$  is tangent at D,  $\overline{GA}$  bisects  $\angle BGD$ ,  $m\widehat{AB} = 88^\circ$  and  $m\widehat{DG} = 62^\circ$ . Find the following measures.

33.  $m\widehat{DA} = \underline{88^\circ}$

34.  $m\widehat{GB} = \underline{122^\circ}$

35.  $m\angle 1 = \underline{75^\circ}$

36.  $m\angle 2 = \underline{105^\circ}$

37.  $m\angle 3 = \underline{48^\circ}$

38.  $m\angle 4 = \underline{57^\circ}$

39.  $m\angle 5 = \underline{31^\circ}$

40.  $m\angle 6 = \underline{44^\circ}$

41.  $m\angle 7 = \underline{61^\circ}$

42.  $m\angle 8 = \underline{61^\circ}$

43.  $m\angle 9 = \underline{31^\circ}$

