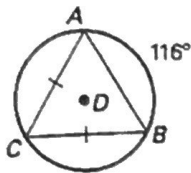
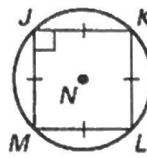


Find the measure of the given arc or chord.

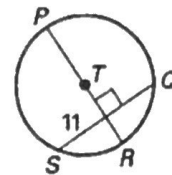
1. $m\widehat{BC}$



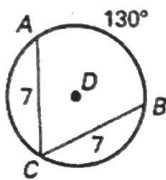
2. $m\widehat{LM}$



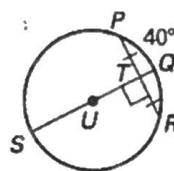
3. \overline{QS}



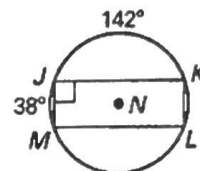
4. $m\widehat{AC}$



5. $m\widehat{PQR}$

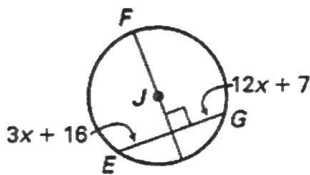


6. $m\widehat{KLM}$

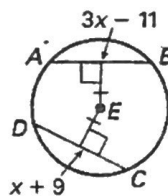


Find the value of x .

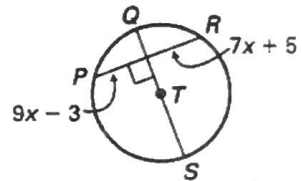
7.



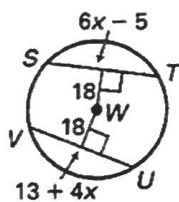
8.



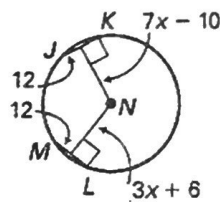
9.



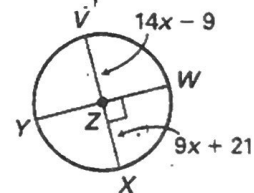
10.



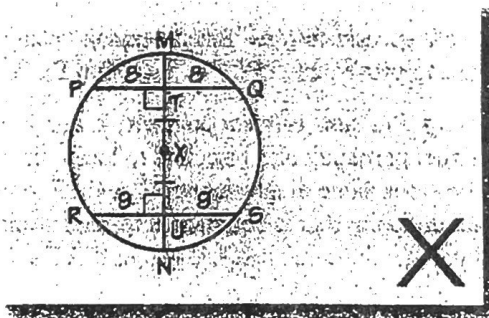
11.



12.



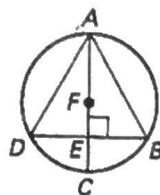
13. **Error Analysis** Explain what is wrong with the diagram of $\odot X$.



14. **Proof** Copy and complete the proof.

GIVEN: \overline{AC} is a diameter of $\odot F$. $\overline{AC} \perp \overline{BD}$

PROVE: $\widehat{AD} \cong \widehat{AB}$

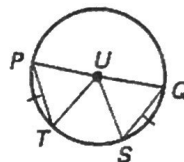


Statements	Reasons
1. \overline{AC} is a diameter of $\odot F$. $\overline{AC} \perp \overline{BD}$	1. ?
2. ?	2. All right angles are congruent.
3. $\overline{DE} \cong \overline{BE}$	3. ?
4. $\overline{AE} \cong \overline{AE}$	4. ?
5. $\triangle AED \cong \triangle AEB$	5. ?
6. ?	6. Corresponding parts of congruent triangles are congruent.
7. $\widehat{AD} \cong \widehat{AB}$	7. ?

15. **Proof** Copy and complete the proof.

GIVEN: \overline{PQ} is a diameter of $\odot U$. $\widehat{PT} \cong \widehat{QS}$

PROVE: $\triangle PUT \cong \triangle QUS$



Statements	Reasons
1. \overline{PQ} is a diameter of $\odot U$. $\widehat{PT} \cong \widehat{QS}$	1. ?
2. ?	2. Theorem 6.5
3. $\overline{UP} \cong \overline{UQ} \cong \overline{UT} \cong \overline{US}$	3. ?
4. $\triangle PUT \cong \triangle QUS$	4. ?

16. **Multiple Representations** Briefly explain what other congruence postulate you could use to prove that $\triangle PUT \cong \triangle QUS$ in Exercise 15.

17. **Reasoning** Plot noncollinear points X , Y , and Z on a piece of paper. Use \overline{XY} and \overline{XZ} to construct perpendicular bisectors to locate the point that is equidistant to each point. With the same diagram, use \overline{XY} and \overline{YZ} to construct perpendicular bisectors to locate the point that is equidistant to each point. Are the two points the same? Would you get the same result if you used \overline{XZ} and \overline{YZ} ? *Explain.*