Name: _____ Hour: _____ 12.2 Arcs and Angles

Ready

1. $\overline{FH}$ and $\overline{JK}$ are diameters. Find the measure of each angle or arc.

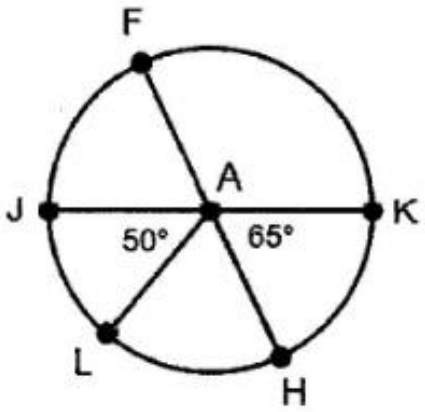
a. $m\angle FAJ$ b. $m\angle LAH$

c. $m\angle KAF$ d. $m\overset{\frown}{JL}$

e. $m\overset{\frown}{LH}$ f. $m\overset{\frown}{HK}$

g. $m\overset{\frown}{KF}$ h. $m\overset{\frown}{JF}$

i. $m\overset{\frown}{JH}$ j. $m\overset{\frown}{JHF}$



2. $\overline{FH}$ and $\overline{JK}$ are diameters, $m\angle FHM = 40°, m\angle GJK, m\angle JKG = 45°, m\angle FAJ, m\angle KAH = 45°$, and $m\overset{\frown}{JL} = 50°$. Find the measure of each angle or arc.

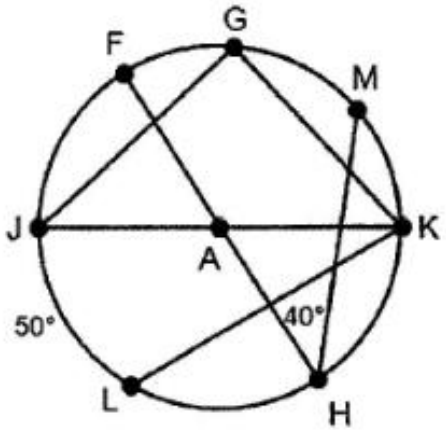
a. $m\overset{\frown}{JF}$ b. $m\overset{\frown}{LH}$

c. $m\angle JKL$ d. $m\overset{\frown}{FM}$

e. $m\angle HAK$ f. $m\overset{\frown}{HK}$

g. $m\overset{\frown}{KF}$ h. $m\overset{\frown}{KH}$

i. $m\overset{\frown}{JGK}$ j. $m\overset{\frown}{MK}$



Set

True or False.

3. An angle inscribed in a circle with endpoints on the diameter has a measure of 90°. _____

4. Two inscribed angles that intercept the same arc are complementary. _____

5. The sides of an inscribed angle are chords. _____

6. The measure of the central angle is double its intercepted arc. _____

7. The measure of an inscribed angle is half the measure of its intercepted arc. _____

Go!

Find each measure in ⊙P if $m\angle WPX = 28°$, $m\angle ZPY = 38°$, and $\overline{WZ}$ and $\overline{XV}$ are diameters.

8. $\overset{\frown}{YZ}$

9. $\overset{\frown}{YZ}$

10. $\angle VPZ$

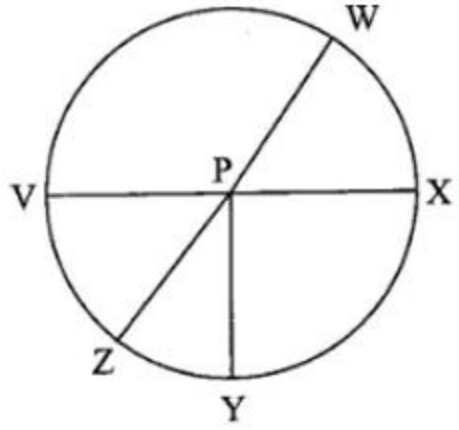
11. $\overset{\frown}{VWX}$

12. $\angle XPY$

13. $\overset{\frown}{XY}$

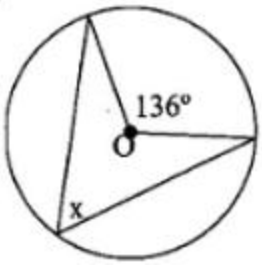
14. $\overset{\frown}{XWY}$

15. $\overset{\frown}{WZX}$



In each of the following figures, O is the center of the circle. Calculate the values of x and justify your answer.

16.



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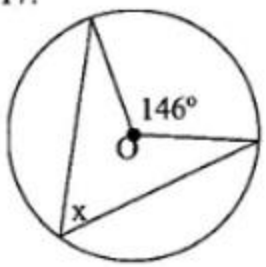

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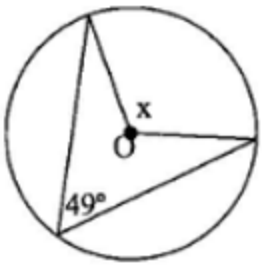

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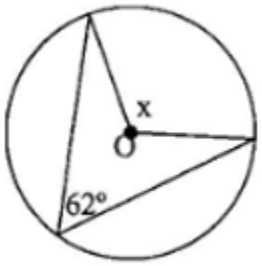

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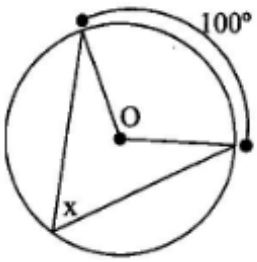

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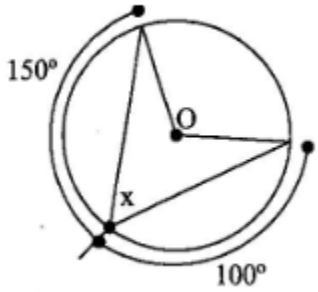

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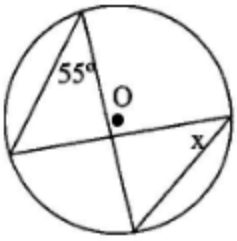

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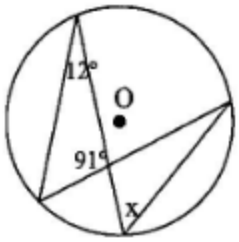

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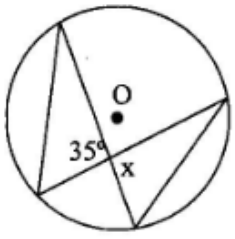

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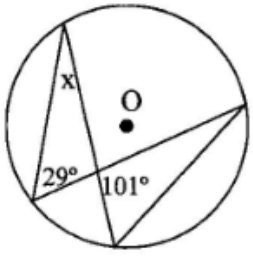

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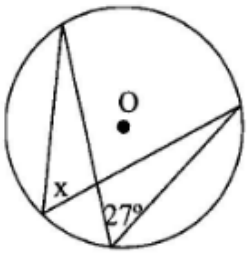

27.