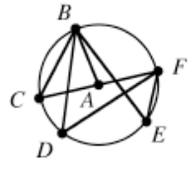
Review & Preview

10-17. In $\odot A$ at right, $\overline{CF}$ is a diameter and $m\angle C = 64°$. Find:



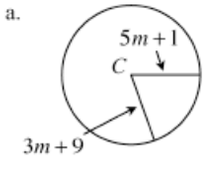
a. $m\angle D$ b. $m\overset{\frown}{BF}$ c. $m\angle E$

d. $m\overset{\frown}{CBF}$ e. $m\angle BAF$ f. $m\angle BAC$

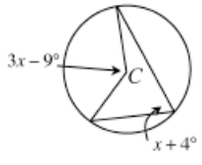
10-18. Find the area of a regular polygon with 100 sides and with a perimeter of 100 units.

10-19. For each of the geometric relationships represented below, write and solve an equation for the given variable. For parts (a) and (b), assume that C is the center of the circle. Show all work.

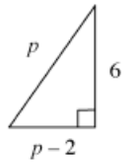
a.



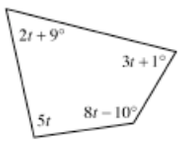
b.



c.



d.



10-20. On graph paper, plot $\triangle ABC$ if $A(-1, -1)$, $B(1, 9)$ and $C(7, 5)$.

a. Find the midpoint of $\overline{AB}$ and label it D. Also find the midpoint of $\overline{BC}$ and label it E.

b. Find the length of the midsegment, $\overline{DE}$. Use it to predict the length of $\overline{AC}$.

c. Now find the length of $\overline{AC}$ and compare it to your prediction from (b).

10-21. $ABCDE$ is a regular pentagon inscribed in $\odot O$.

a. Draw a diagram of $ABCDE$ and $\odot O$ on your paper.

b. Find $m\angle EDC$. How did you find your answer?

c. Find $m\angle BOC$. What relationship did you use?

d. Find $m\overset{\frown}{EBC}$. Is there more than one way to do this?

10-22. **Multiple Choice:** Jill's car tires are spinning at a rate of 120 revolutions per minute. If her car tires' radii are each 14 inches, how far does she travel in 5 minutes?

a. 140π b. 8400π in c. 3360π in d. 16800π in