

10-25.

- a. 90 , because an inscribed angle is always half of the intercepted arc.
- b. 5 units; 25π units squared

10-26.

- a. 11.6 units; You may use a perpendicular bisector of LM to create right triangles or you may use the Law of Cosines.
- b. 73.7

10-27.

- b. $\angle B = \angle C$ because they both intercept the same arc. The same is true for $\angle D$ and $\angle A$.
- c. They are similar because of AA~ .
- d. $EC = 3$

10-28.

- a. Arc BAD = 200° , so BCD = 160° ; $x = 80^\circ$;
- b. Yes, she is correct. The opposite angles face arcs that together form the entire circle. Since the measure of each inscribed angle is half the arc it intercepts, then the sum of the angle measures must be half the sum of the arcs, or half of 360° . Thus, the measures of the opposite angles must add to 180° . Therefore, they are supplementary.

10-29.

- a. $KQ=6$, so $3x = (6)(2)$, and $x=4$ inches
- b. $\angle S = 90^\circ$, $x=60^\circ$
- c. $EF = 104^\circ$, $x=125^\circ$