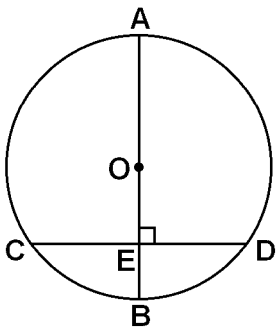
Name: _____

CC Geometry

Chords, Diameters and Tangents

1) In the accompanying diagram of circle O, diameter $\overline{AB}$ is perpendicular to chord $\overline{CD}$ at E.

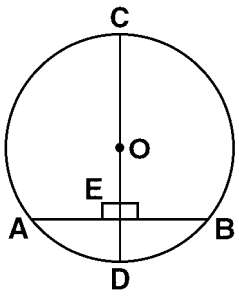


Which of the following three statements is *true*?

I. $\overline{CE} \cong \overline{ED}$
II. $\overline{CB} \cong \overline{BD}$
III. $\overline{AC} \cong \overline{AD}$

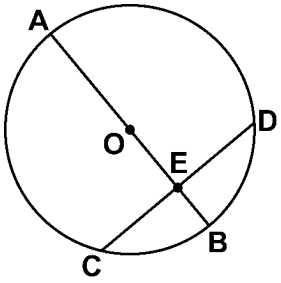
A) *I* and *II*, only
B) *I*, *II*, and *III*
C) *I*, only
D) *I* and *III*, only

2) In the diagram below, diameter $\overline{CD} \perp$ chord $\overline{AB}$.



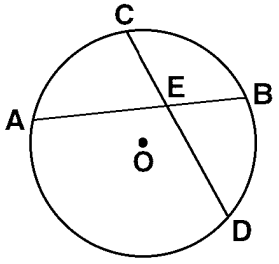
If AB = 8 and CE = 8, find ED.

3) In circle O, diameter $\overline{AB}$ is perpendicular to chord $\overline{CD}$ at E.



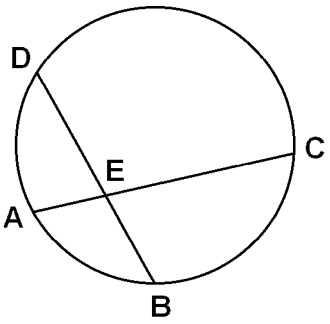
If AE = 16 and EB = 4, what is CD?

4) In the above diagram, chords $\overline{AB}$ and $\overline{CD}$ intersect at point E in circle O.



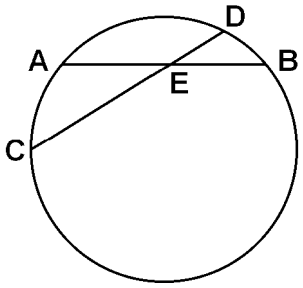
If AE = 10, CE = 5, and ED = 4, find EB.

5) In the accompanying diagram of a circle, chords $\overline{AC}$ and $\overline{BD}$ intersect at point E, DE = 6, EB = 4, and AE = 3.



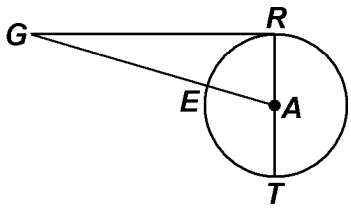
What is EC?

6) In the accompanying diagram, chords $\overline{AB}$ and $\overline{CD}$ intersect at E.



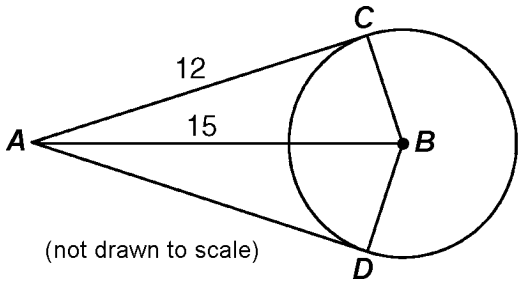
If AB = 15, BE = 6, and CE = 12, find DE.

7) In the accompanying diagram, $\overline{GR}$ tangent to circle *A* at point *R* and segment *GEA* is drawn.



If diameter *RAT* = 14 in. and segment *GEA* = 25 in., what is the length of tangent $\overline{GR}$?

8) In the diagram below, $\overline{AC}$ and $\overline{AD}$ are tangent to circle *B* at points *C* and *D*, respectively, and $\overline{BC}$, $\overline{BD}$, and $\overline{BA}$ are drawn.



If *AC* = 12 and *AB* = 15, what is the length of $\overline{BD}$?