Teacher Notes
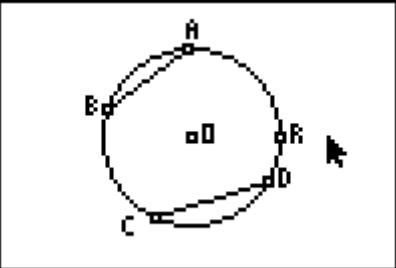
G.G.49 Investigate, justify, and apply theorems regarding chords of a circle:
  ➢ perpendicular bisectors of chords

Lesson Launcher Objectives:
   1) **Discover that the perpendicular bisector of a chord of a circle passes through the center of a circle.**
   2) **Discover that the intersection of the perpendicular bisectors of any two chords of a circle is the center of the circle.**

Procedure:

The student opens Cabri Jr. and the APPVAR CHORDS	As the student explores the figure by moving various points they will be able to conclude that the perpendicular bisectors of two chords must intersect at the center of the circle.

   1.) Select, grab and drag point A or point B. What seems to be true about the perpendicular bisector of chord AB?
   The perpendicular bisector passes through the center of the circle.
   2.) Construct the perpendicular bisector of chord CD. What is true of the perpendicular bisectors of chords AB and CD?
   They intersect at the center of the circle.
   3.) If you are given the following diagram how would you locate the center of the circle?
   Construct chords XY and YZ and find the intersection of the perpendicular bisectors of these chords.