Corner Brook Intermediate

Unit 8: Circle Geometry

Name:

**1.** Point O is the centre of each circle. Determine the values of  $x^{\circ}$  and  $y^{\circ}$ . Justify your solutions.



Use the properties of inscribed and central angles to explain why all angles inscribed in a semicircle are right angles.



All the inscribed angles are 90" since the central angle is a Straight line (180°) and all inscribed angles are half the central angle.

A student looked at the diagram below and concluded that x° = y°.
The student justified that conclusion by saying that both angles are subtended by arc AB. What is the student's error?
What are the values of x° and y°?

360-1700=1900

x° =  $\frac{1}{2}(170^\circ) = 85^\circ$ yo =  $\frac{1}{2}(190^\circ) = 95^\circ$ The student never realized at angle x° is subfunded by the minor arc AB and y° is subfunded by the major arc AB.

 Point O is the centre of the circle; DB is a diameter. Determine the values of w°, x°, y°, and z°. Justify your solutions.

