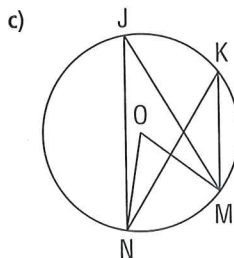
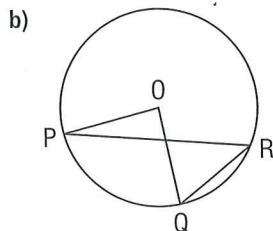
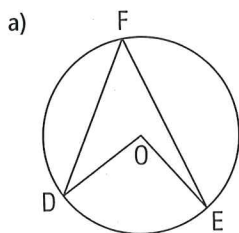


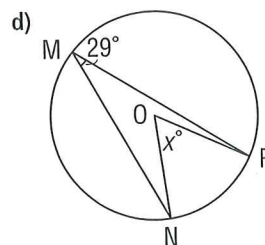
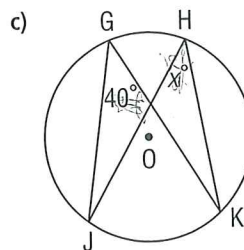
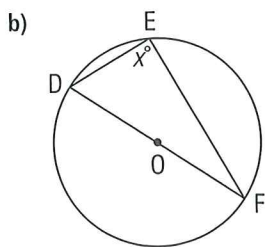
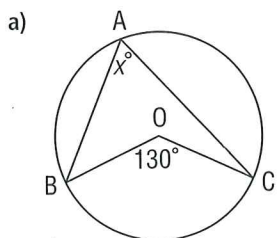
Practice

Check

3. In each circle, identify an inscribed angle and the central angle subtended by the same arc.

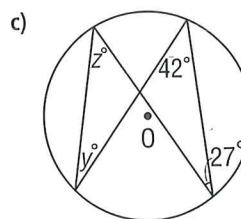
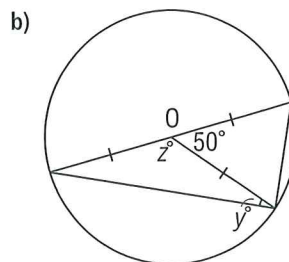
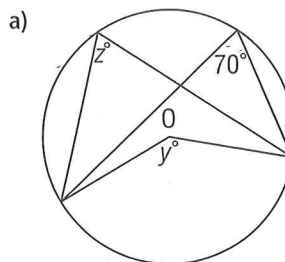


4. Point O is the centre of each circle. Determine each value of x° .



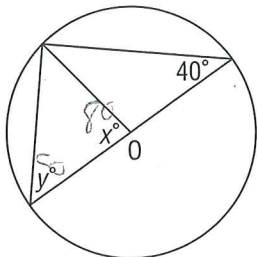
Apply

5. Point O is the centre of each circle. Label each vertex. Determine each value of y° and z° . Which circle properties did you use?

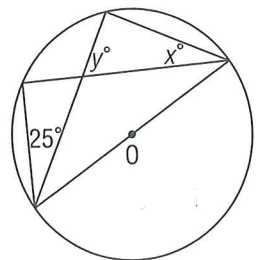


6. Point O is the centre of each circle. Label each vertex. Determine each value of x° and y° . Which circle properties did you use?

a)



b)



7. Construct a circle and two diameters PR and QS. Join the endpoints of the diameters to form quadrilateral PQRS.

a) What type of quadrilateral is PQRS?

Use what you have learned in this lesson to justify your answer.

b) What type of quadrilateral is PQRS when the diagonals are perpendicular?

Construct a diagram to check your answer.

8. Draw and label a diagram to illustrate:

a) the measure of the central angle in a circle is equal to twice the measure of an inscribed angle subtended by the same arc

b) the inscribed angles subtended by the same arc of a circle are equal

9. Rectangle PQRS is inscribed in a circle with radius 7 cm. The length of the rectangle is 12 cm.

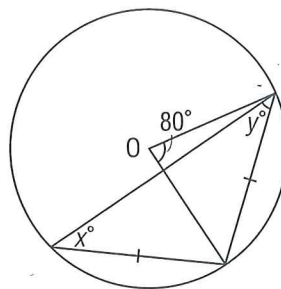
a) Sketch a diagram.

- b) What is the width of the rectangle?
Give the answer to the nearest tenth.
Justify your solution.

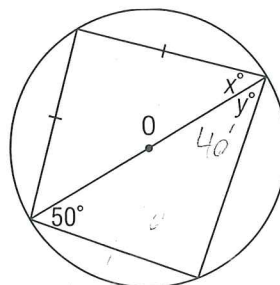
10. **Assessment Focus** Geometry sets often include *set squares*. A set square is a plastic right triangle. Trace around a circular object. Explain how you can use a set square and what you know about the angle in a semicircle to locate the centre of the circle. Justify your solution.

11. Point O is the centre of each circle. Label each vertex. Determine each value of x° and y° . Which circle properties does each question illustrate?

a)



b)



c)

