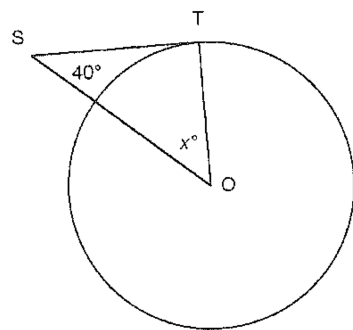


Chords and Tangents Practice Problems

Solve each of the following problems. Explain your reasoning and show your work for each.

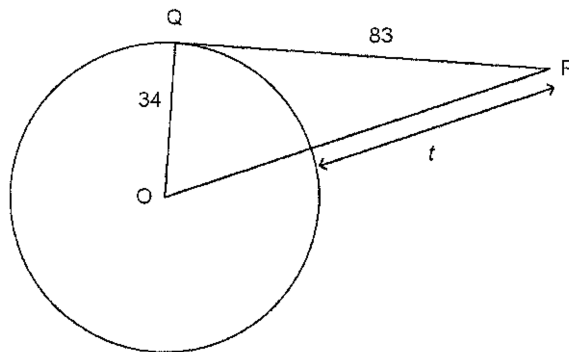
1.

O is the centre of this circle and point T is a point of tangency. Determine the value of x° .



2.

O is the centre of this circle and point Q is a point of tangency. Determine the value of t . If necessary, give your answer to the nearest tenth.

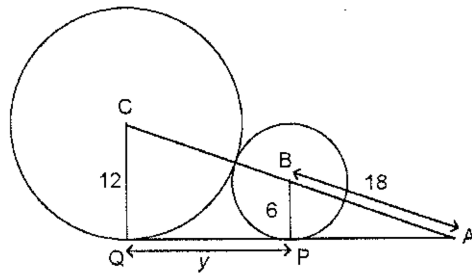


3.

A circle has diameter 32 cm. How far from the centre of the circle, to the nearest centimetre, is a chord 20 cm long?

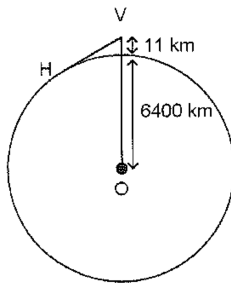
4.

AQ is a tangent to the circle with centre B and to the circle with centre C.
The points of tangency are P and Q.
Determine the value of y to the nearest tenth.



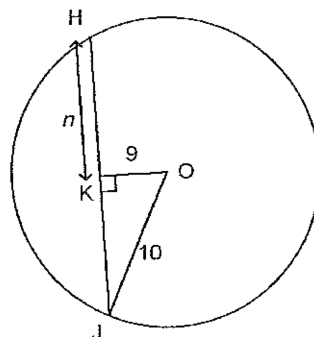
5.

A Ruppell's Griffon Vulture holds the record for the bird with the highest documented flight altitude. It was spotted at a height of about 11 km above the Earth's surface. The radius of Earth is approximately 6400 km. How far was the vulture from the horizon, H? Calculate this distance to the nearest kilometre.



6.

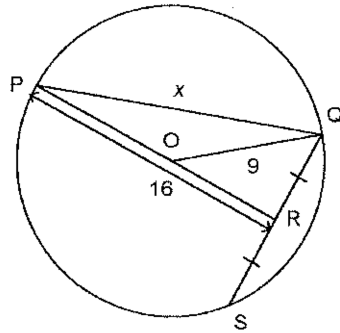
O is the centre of the circle.
Determine the value of n to the nearest tenth, if necessary.



7.

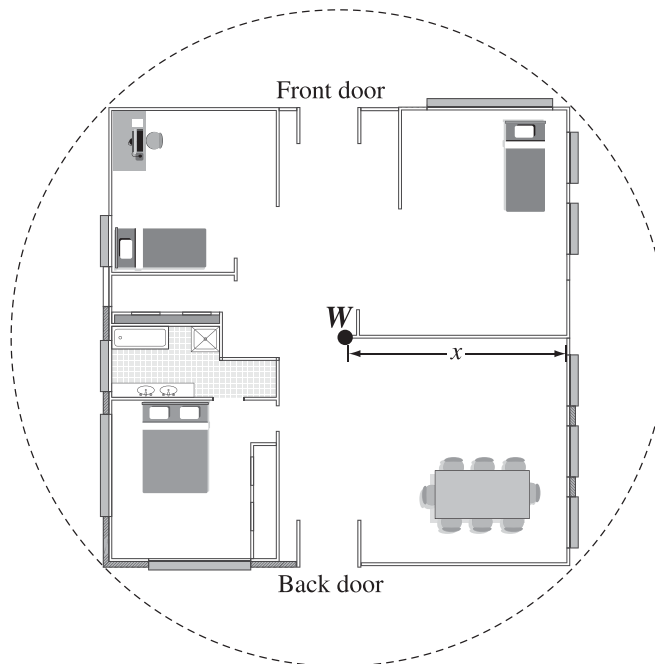
O is the centre of the circle.

Determine the value of x to the nearest tenth, if necessary.



8.

The letter W is in the centre of the diagram below and represents the location of a wireless router for Internet access in a square house. The router provides access to the area represented by the dotted circle in the diagram below. This circular area has a diameter of 20 m.



What is the distance from the router, W , to the middle of one outside wall, to the nearest tenth of a metre?