

CIRCLE PROPERTIES

MTH 4-17a

Having investigated the relationship between a radius and a tangent and explored the size of the angle in a semi-circle, I can use the facts I have established to solve related problems.

Pupils should be able to:

- Know that the radius forms a right angle at the point of contact with the tangent
- Know that the angle formed in a semi - circle is a right angle
- Use the above facts appropriately to solve related problems

Using :

Circle properties

Pythagoras

SOHCAHTOA

PUPILS SHOULD COMPLETE THE FOLLOWING EXERCISE AND ASSESS THEIR PROGRESS BY TICKING ONE OF THE OPTIONS FOR EACH TOPIC IN THE TABLE BELOW

	DEVELOPING	CONSOLIDATING	SECURE
Tangent (QUESTION 1)			
Angle in semi-circle (QUESTION 2)			
Solve using Triangle properties (QUESTION 3)			
Solve using Pythagoras (QUESTION 4)			
Solve using SohCahToa (QUESTION 4)			

mymaths lessons: no appropriate lesson at this level although

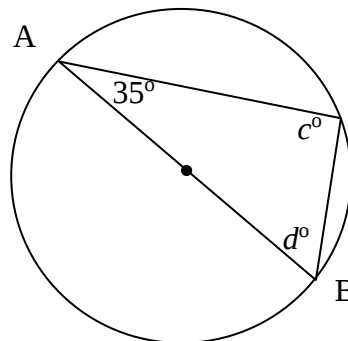
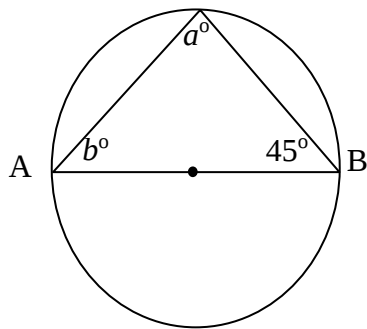
<http://www.mymaths.co.uk/tasks/library/loadLesson.asp?title=circletheorems/circleTheorems&taskID=1087> is useful

SELF EVALUATION EXERCISE

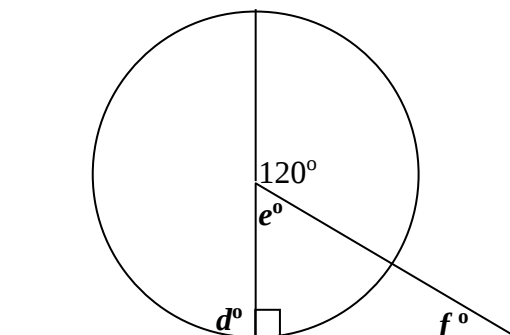
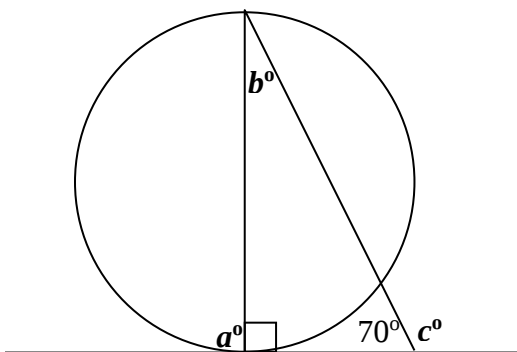
DATE DUE _____

Write your answers next to each question.

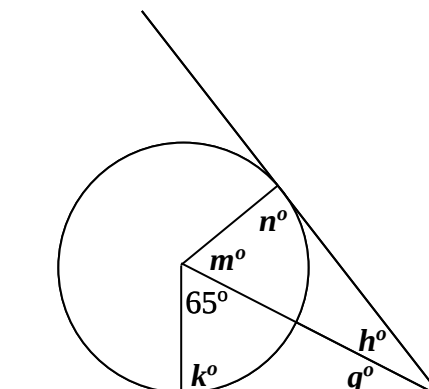
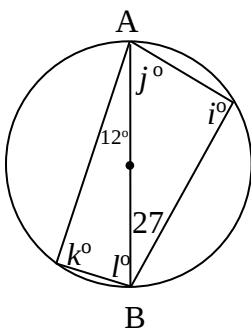
- In each of the diagrams below AB is a diameter. Find the missing angles in each diagram.



- Calculate the sizes of the angles marked a , b , c , d , e , f in the diagrams below.



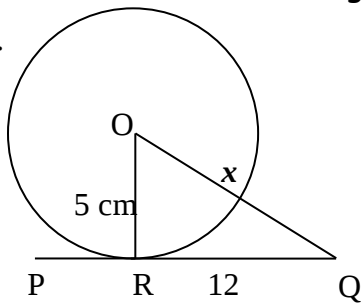
- AB is a diameter. Find the missing angles



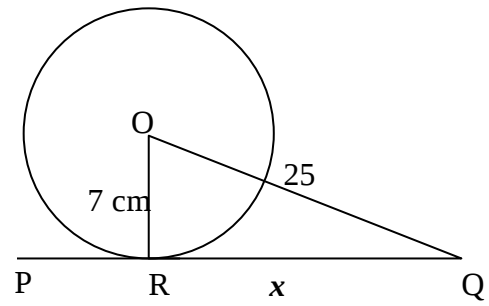
4. In each of the diagrams below, PQ is a tangent which touches the circle at R .

Calculate the lengths of the lines marked x .

a.



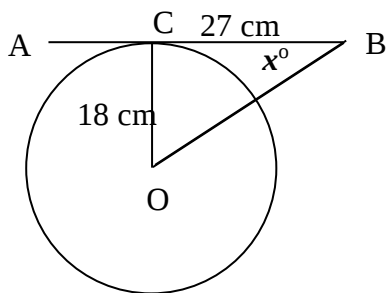
b.



5. In each of the diagrams below, AB is a tangent which touches the circle at C .

Calculate x for each diagram.

a.



b.

