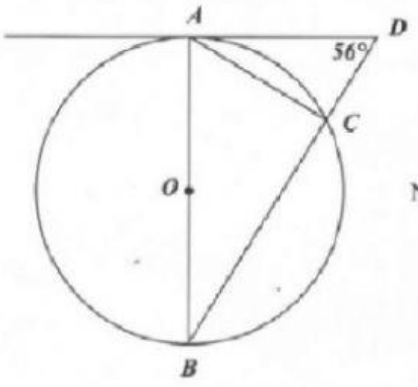
Circle Theorems

Answer the questions below.

1. AB is a diameter of the circle ABC with centre O. AD is a tangent to the circle at A. $\angle ADC = 56°$.



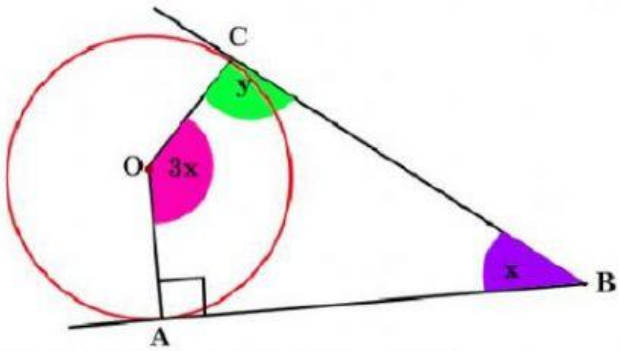
NOT TO SCALE

Calculate (i) $\angle BCA$, = ☐°

(ii) $\angle ABD$, = ☐°

(iii) $\angle CAD$, = ☐°

2.



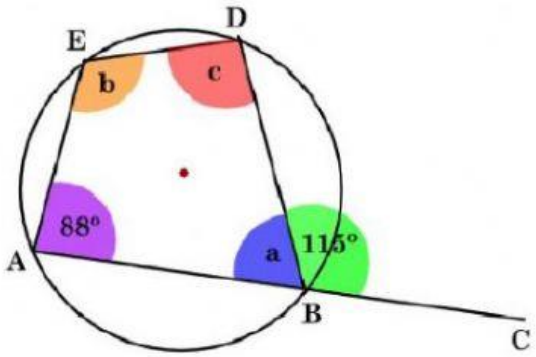
Find the angles that are marked with a letter.

(i) y = ☐°

(ii) x = ☐°

(iii) 3x = ☐°

3.



Find the angles that are marked with a letter.

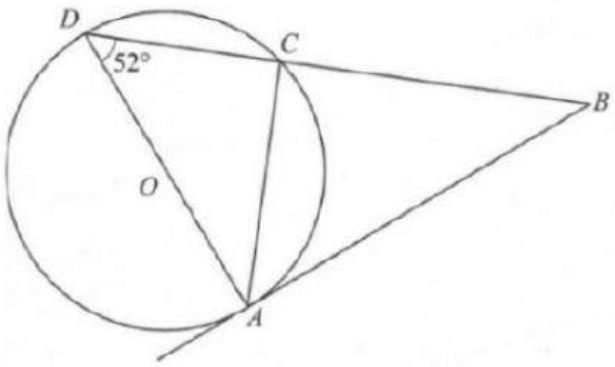
(i) **a =** ☐ °

(ii) **b =** ☐ °

(iii) **c =** ☐ °

4.

In the diagram, O is the centre of the circle. AB is tangent to the circle at A and $\angle ADB = 52°$.



NOT TO SCALE

Calculate the value of

(i) $\angle CAD$, = ☐ °

(ii) $\angle CAB$, = ☐ °

(iii) $\angle CBA$. = ☐ °