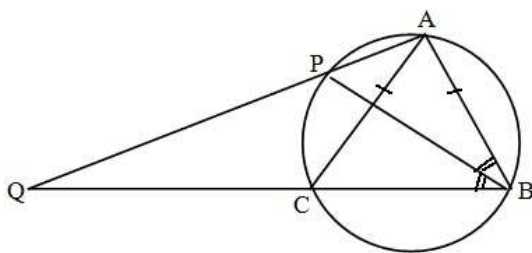


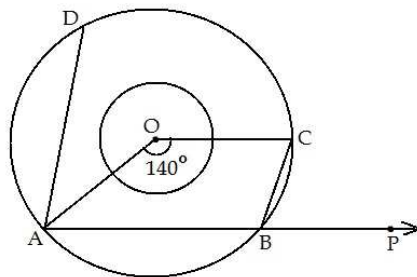
10. Circles (Assignment)

Important-Question for Assignment:

Q1. The bisector of $\angle B$ of an isosceles triangle ABC with $AB = AC$ meets the circumcircle of ABC at P as shown in figure. If AP and BC produced meet at Q , prove that $CQ = CA$.



Q2. In the given figure, O is the centre of the circle. The angle subtended by arc ABC at the centre is 140° , AB is produced to P . Determine $\angle ADC$ and $\angle CBP$.



Ans: $\angle ADC = 70^\circ$

$\angle CBP = 70^\circ$

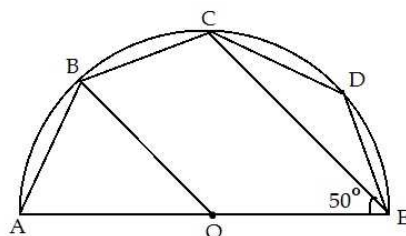
Q3. In the given figure, O is the centre and AE is the diameter of semi-circle $ABCDE$. If $AB = BC$ and $\angle AEC = 50^\circ$, then find

(i) $\angle CBE$

(ii) $\angle CDE$

(iii) $\angle AOB$

(iv) Prove that $BO \parallel$



Ans: $\angle CBE = 40^\circ$

$\angle CDE = 140^\circ$

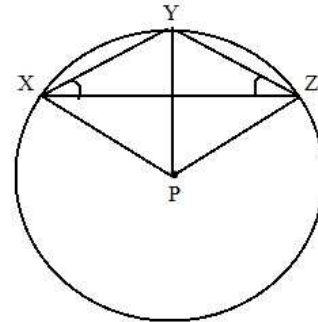
$\angle AOB = 50^\circ$

CE

Q4. In figure, P is the centre of the circle.

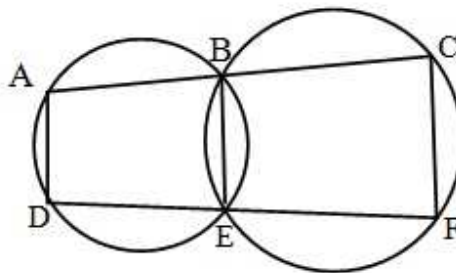
Prove that

$$\angle XPZ = 2 (\angle XZY + \angle YXZ)$$

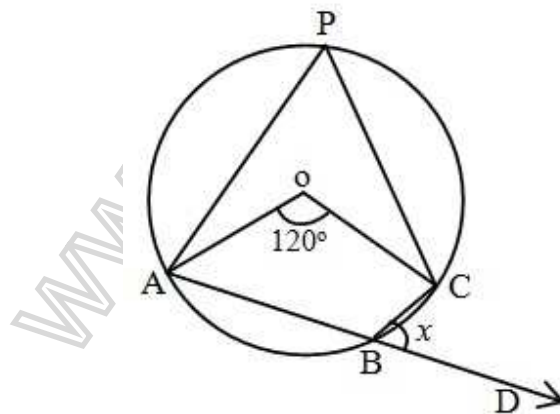


Q5. In given fig. B and E are the midpoints respectively on line segment AC and DF.

Show that $AD \parallel CF$.

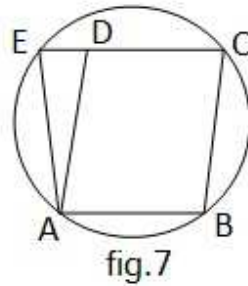


Q6. Find the value of x see given figure.

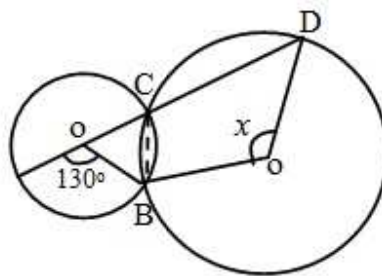


Ans: $x = 60^\circ$

Q7. ABCD is a parallelogram. The circle through A, B and C intersects CD produced at E, prove that $AE = AD$.



Q8. In the given Figure, find the value of x .



Ans: $x = 130^\circ$