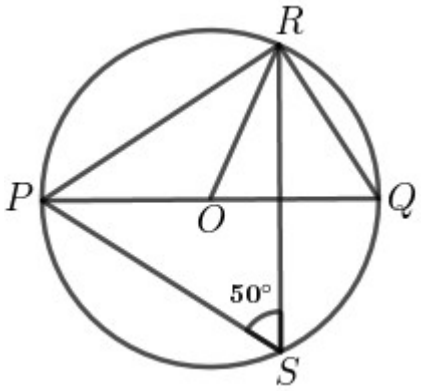
WANDOOR GANITHAM - S S L C LAST BELL 2021

2711E

FOCUS AREA - CIRCLES

1) In the figure O is the centre of the circle . < PSR = 50 ^{0}



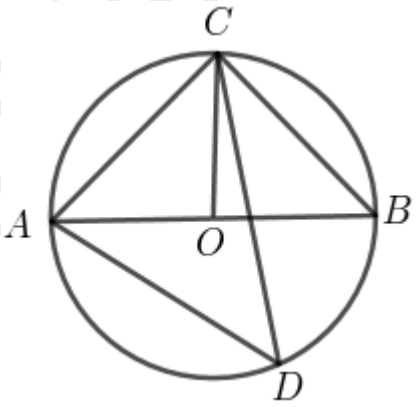
a) What is the measure of < PRQ ?

b) What is the measure of < PQR ?

c) What is the measure of < POR ?

d) What is the measure of < PRO ?

2) In the figure O is the centre of the circle . AC = BC



a) What is the measure of < ACB ?

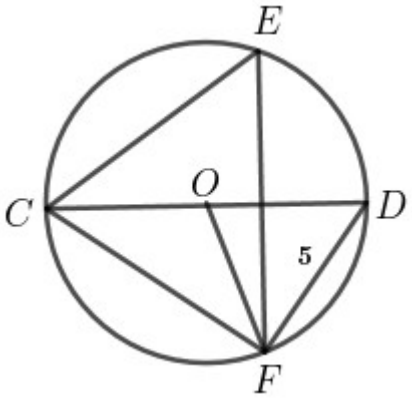
b) What is the measure of < ABC ?

c) What is the measure of < ADC ?

d) What is the measure of < AOC ?

3) In the figure O is the centre of the circle .

CD=10cm , DF= 5cm



a) What is the measure of < CFD ?

b) What is the length of CF ?

c) What is the measure of < FCD ?

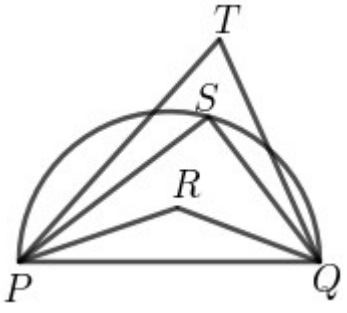
d) What is the measure of < DOF ?

e) What is the measure of < CEF ?

4) In the figure PQ is the diameter of the semicircle .

The measures of < R , < S and < T are in arithmetic sequence

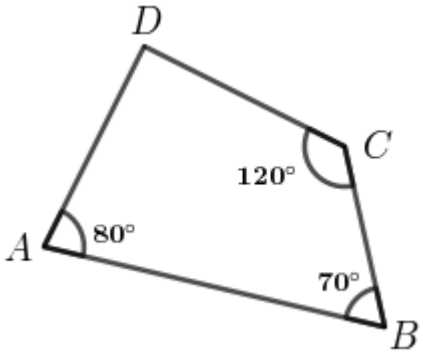
< T = 60 ^{0}



a) What is the measure of < S ?

b) What is the measure of < R ?

5) In the figure $< A = 80^0$, $< B = 70^0$, $< C = 120^0$



a) What is the measure of < D ?

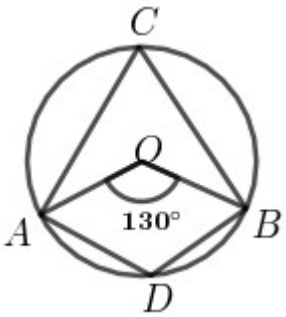
b) The position of D if a circle is drawn with AC as diameter is .....

(inside the circle , outside the circle , on the circle)

c) The position of D if a circle is drawn through the vertices A , B and C is .....

(inside the circle , outside the circle , on the circle)

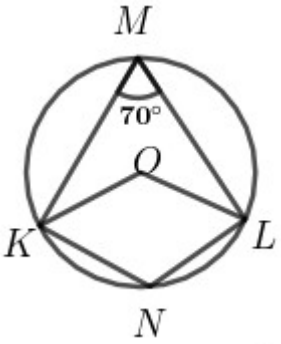
6) In the figure O is the centre of the circle . <AOC= 130 ^{0}



a) What is the measure of < ACB ?

b) What is the measure of < ADB ?

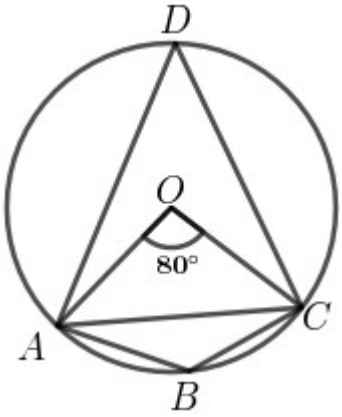
7) In the figure O is the centre of the circle . < KML = 70 ^{0}



a) What is the measure of < KOL ?

b) What is the measure of < KNL ?

8) In the figure O is the centre of the circle . < AOC = 80 ^{0} , AB = BC



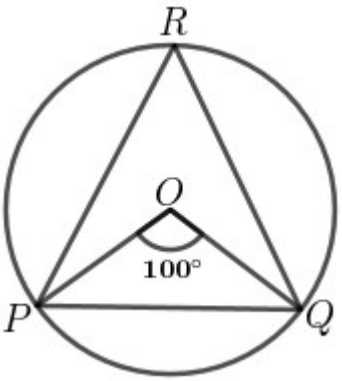
a) What is the measure of < ADC ?

b) What is the measure of < ABC ?

c) What is the measure of < BAC ?

d) What is the measure of < OCB ?

9) In the figure O is the centre of the circle .< POQ = 100 ^{0}, PR= QR



a) What is the measure of < PRQ ?

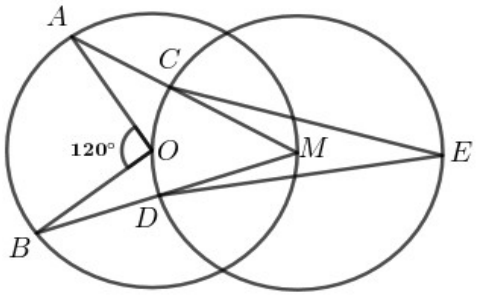
b)What is the measure of < RPQ ?

c) What is the measure of < OQR ?

d) What is the central angle of the arc PQR ?

10) In the figure O and M are the centres of the circles .

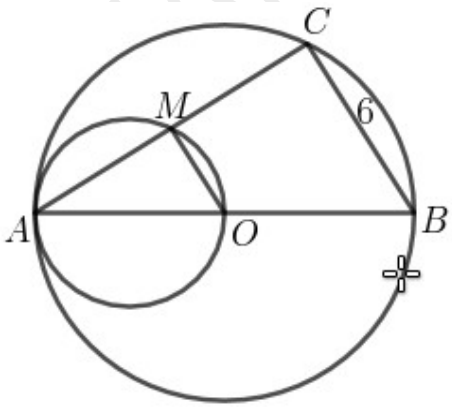
< AOB = 120 ^{0}



a) What is the measure of < AMB ?

b) What is the measure of < CED ?

11) In the figure O is the centre of the larger circle and OA is the diameter of the smaller circle . AB = 10 cm , BC = 6 cm .



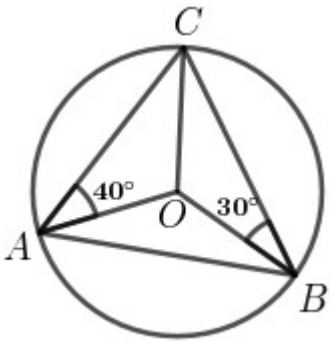
a) What is the measure of < ACB ?

b) What is the measure of < AMO ?

c) What is the length of AM ?

d) What is the perimeter of triangle AMO ?

12) In the figure O is the centre of the circle . < OAC = 40 ^{0} , < OBC = 30 ^{0}



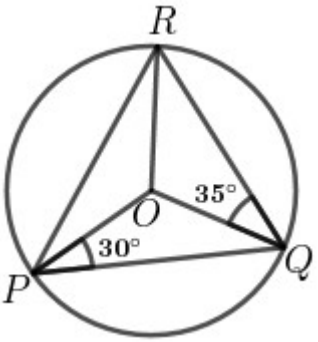
a) What is the measure of < ACO ?

b) What is the measure of < AOB ?

c) What is the measure of < OAB ?

d) What is the measure of < ABC ?

13) In the figure O is the centre of the circle .< OPQ = 30 ^{0} ,< OQR = 35 ^{0}



a) What is the measure of < OQP ?

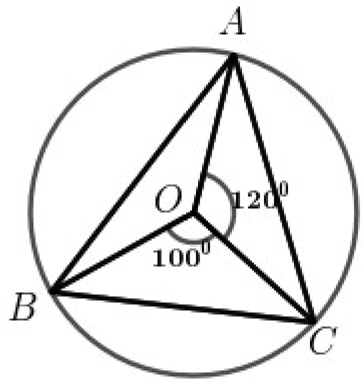
b) What is the measure of < PRQ ?

c) What is the measure of < ORQ ?

d) What is the measure of < OPR ?

14) **In the figure O is the centre of the circle . < BOC = 100 ^{0}**

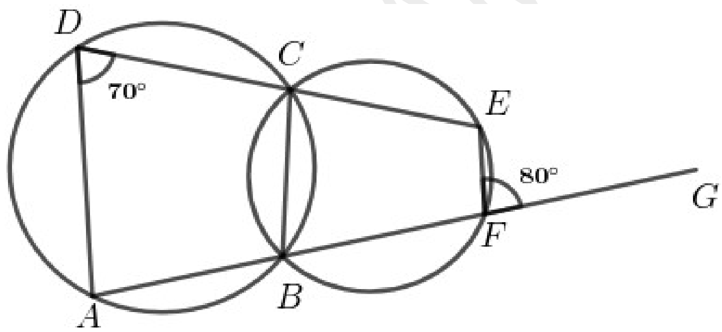
< AOC = 120 ^{0}



a) What is the measure of < BAC ?

b) What is the measure of < ACB ?

15) **In the figure two circle intersect at B and C . < ADC = 70 ^{0} , < EFG = 80 ^{0}**



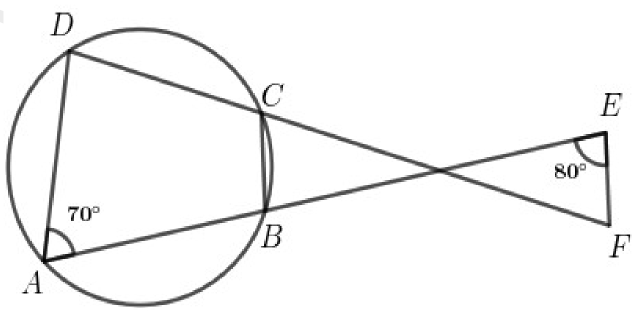
a) What is the measure of < BFE ?

b) What is the measure of < BCE ?

c) What is the measure of < BAD ?

d) What is the measure of < CEF ?

16) **In the figure BC is parallel to EF .< BAD = 70 ^{0} , < BEF = 80^0**



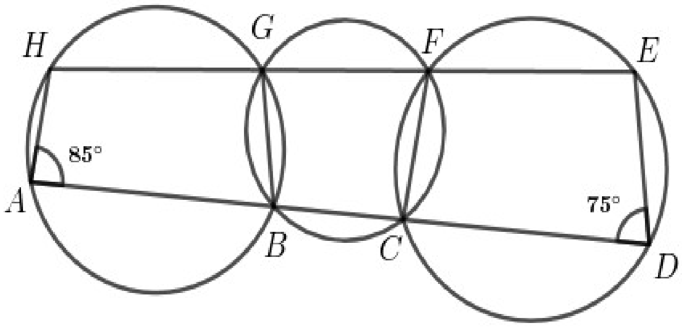
a) What is the measure of < BCD ?

b) What is the measure of < CFE ?

c) What is the measure of < CBE ?

d)What is the measure of < ADC ?

17) **In the figure < BAH = 85^0 , < CDE = 75^0**



a) What is the measure of < BGH ?

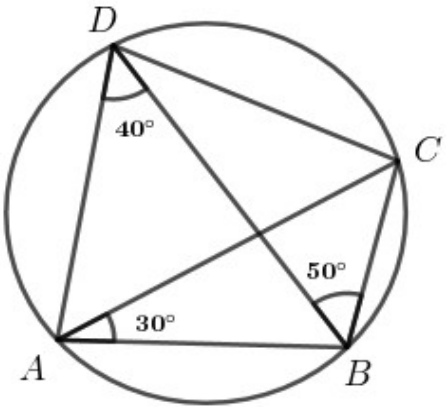
b) What is the measure of < BCF ?

c) What is the measure of < DEF ?

d) What is the measure of < CFE ?

e) What is the measure of < AHG ?

18) In the figure $< ADB = 40^0$, $< BAC = 30^0$, $< CBD = 50^0$



a) What is the measure of < ACB ?

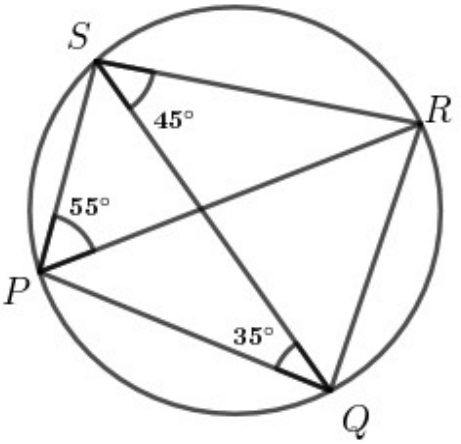
b) What is the measure of < BDC ?

c) What is the measure of < CAD ?

d) What is the measure of < ABD ?

e) What is the central angle of the arc DAB ?

19) In the figure $< QSR = 45^0$, $< RPS = 55^0$, $< PQS = 35^0$



a) What is the measure of < QPR ?

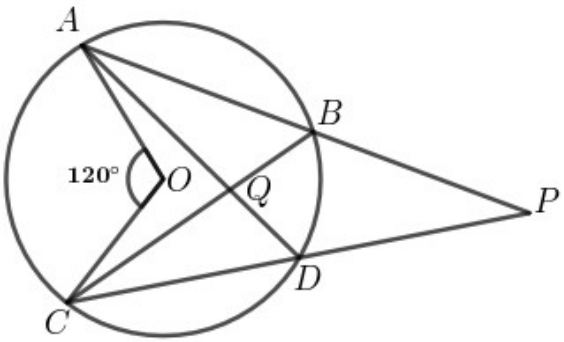
b) What is the measure of < RQS ?

c) What is the measure of < PRS ?

d) What is the measure of < PRQ ?

e) What is the central angle of the arc PQR ?

20) In the figure O is the centre of the circle . . $< AOB = 120^0$

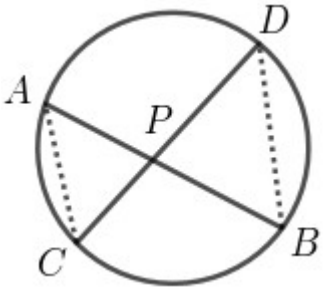


a) What is the measure of < ABC ?

b) What is the measure of < PDQ ?

c) < BQD + < BPD = ...

21) In the figure two chords AB and CD intersect at P .



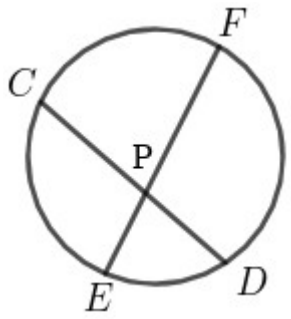
a) Which other angle is equal to the measure of < CAB ?

b) Which other angle is equal to the measure of < ABD ?

c) Prove that PA x PB = PC x PD ?

22) In the figure two chords CD and EF intersect at P . EF = 18 cm , EP = 2 cm

The length of PC is double the length of PD .

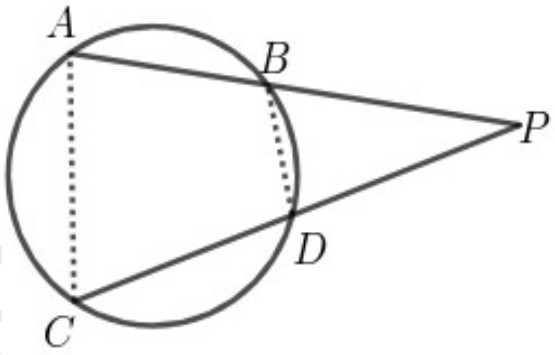


a) What is the length of PF ?

b) What is the length of PC x PD = ...

c) What is the length of CD ?

23) In the figure , chords AB and CD are extended to meet at P .



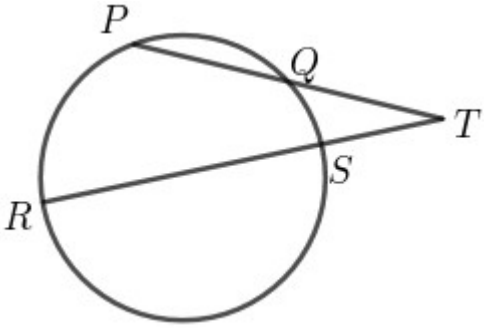
a) If < C = 60^0, what is the measure of < ABD ?

b) Prove that the angles of triangles APC and BPD are same ?

c) Prove that PA x PB = PC x PD ?

24) In the figure , chords PQ and RS are extended to meet at T .

RT = 32 cm , RS = 28 cm . Q is the midpoint of PT .

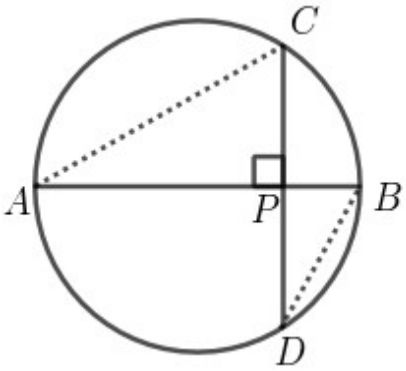


a) What is the length of TS ?

b) TP x TQ =

c) What is the length of PQ ?

25) In the figure AB is the diameter of the circle . P is a point on AB . CD is a chord perpendicular to AB through P .



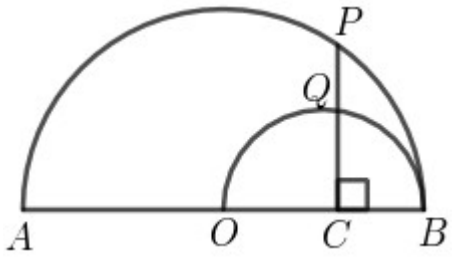
a) Which other angle is equal to the measure of< ACD ?

b) Prove that PA x PB = PC x PD ?

c) Which other line has the same length as that of PC ?

d) Prove that PA x PB = PC^2 ?

26) In the figure O is the centre of the larger semicircle and OB is the diameter of the smaller circle . AB = 20 cm , CB = 4 cm

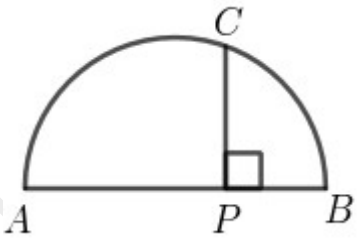


a) What is the length of AC ?

b) What is the length of CP ?

c) What is the length of CQ ?

27) In the figure AB is the diameter of the semicircle .

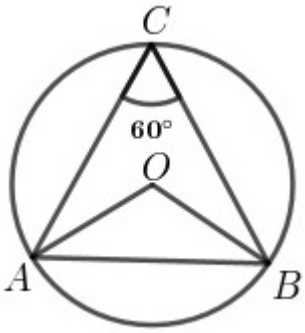


P is a point on AB . The perpendicular drawn through P to AB meets the semicircle at C .

a) If PA = 6 cm and PB = 2 cm ,what is the length of PC ?

b) Draw a square of area 15 square centimetres ?

28) In the figure O is the centre of the circumcircle of triangle ABC . < C = 60 ^{0}



a) What is the measure of < AOB ?

b) Draw a triangle of circumradius 3 centimetres and two of the angles 60 ^{0} and 70 ^{0} ?

29) The vertices of a triangle are points on a circle of radius 4 centimetres . If two angles of this triangle are 65 ^{0} and 75 ^{0} , draw the triangle .