Class: 10	Subject: Maths	Date: 17-08-2020	WorksheetNo: 8

LESSON : CIRCLES

Activity: 1

In the figure, radius of the circle is 3 c.m. and the central angle is 120°.

Find the

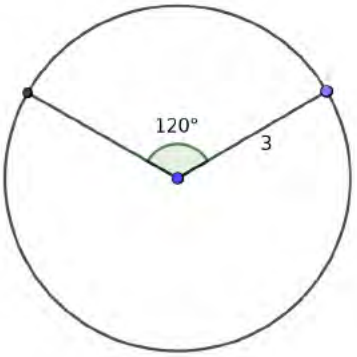
a) area b) Perimeter

of the circle.

Also find the

c) area d) Perimeter

of the sector



Activity: 2

AB= 4 cm

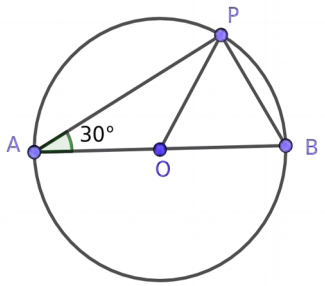
a) Draw some Right Triangles with AB as hypotenuse.

b) Draw a circle with AB as diameter.

c) Check whether all the third corners of the right triangles are in the circle.

Activity: 3

In the figure, AB is the diameter of the circle. $\angle A = 30^0$



Then find

a) $\angle ABP$

b) $\angle APB$

c) $\angle APO$

d) $\angle BPO$

e) $\angle AOP$

f) $\angle BOP$

Activity: 4

Prove that the two circles drawn on the equal sides of an isosceles triangle, as diameters pass through the midpoint of the third side.

Link	QR Code
PLAY	

Class: 10	Subject: maths	Date: 19-8-20	Worksheet No: 9

Lesson: Circles L.O. : Right angle and Circle

Concepts

1) If we join the ends of the diameter of a circle to a point inside the circle gives an angle greater than 90^0

2) If we join the ends of the diameter of a circle to a point outside the circle gives an angle less than 90^0

3) If a pair of lines drawn from the ends of a diameter of a circle are perpendicular to each other, then they meet on the circle

Activity 1

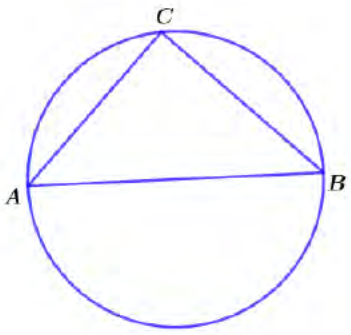
In Δ ABC , $\angle A = 35^0$, $\angle C = 20^0$ then

a) Find $\angle B$

b) If we draw a circle with AC as diameter, where will be the position of the point B? Inside the circle, outside the circle or on thecircle?

Activity 2

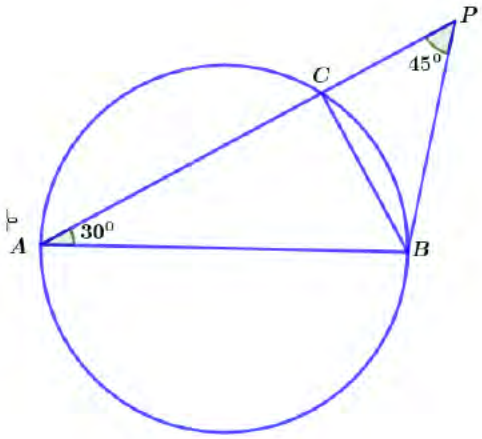
In the figure AB is the diameter of the circle and BC=AC Find all angles of Δ ABC



Activity 3

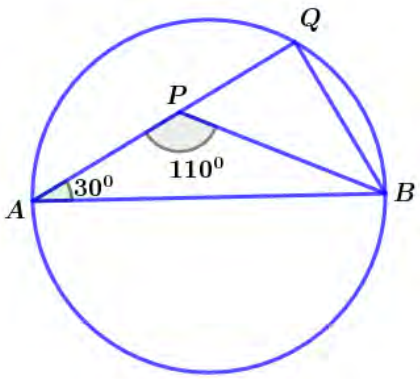
In the figure AB is the diameter of the circle. If $\angle A = 30^0$, $\angle P = 45^0$ then find

a)∠ACB
b)∠ABC
c)∠PCB
d)∠PBC



Activity 4

In the figure AB is the diameter of the circle. If $\angle QAB = 30^0$, $\angle APB = 110^0$, find



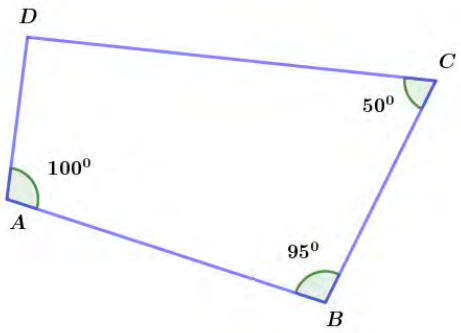
a) $\angle ABP$
b) $\angle AQB$
c) $\angle PBQ$
d) $\angle QPB$

Activity 5

A circle is drawn with one side of an equilateral triangle as diameter. Is the third vertex inside the circle or outside?

Activity 6

a)In quadrilateral ABCD, find the measure of $\angle D$



b) If we draw a circle with AC as diameter, check whether the points B and D are inside the circle, outside the circle or on the circle

ClassVideo Link	Scan for Video
PLAY	

Class: 10	Subject: maths	Date: 21-8-20	Worksheet No: 10

Lesson: Circles L.O. : Right angle and circle

Concepts

1) If we join the ends of the diameter of a circle to a point inside the circle gives an angle greater than 90^0

2) If we join the ends of the diameter of a circle to a point outside the circle gives an angle less than 90^0

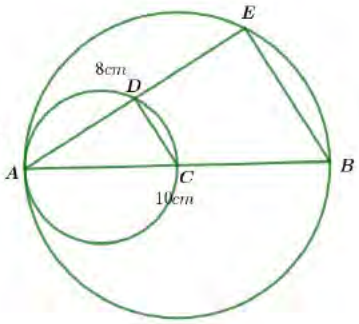
3) If a pair of lines drawn from the ends of a diameter of a circle are perpendicular to each other, then they meet on the circle

Acitivity 1

In the picture, a circle is drawn with AB as diameter and a smaller circle with half the length of AB as diameter. Both circles intersect at A. If AB=10cm and AE=8cm

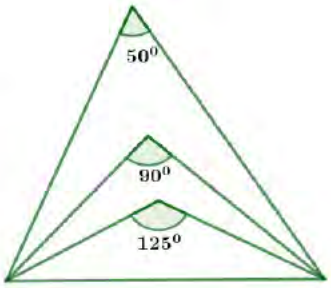
a) Find the lengths of AC and AD

b) What are the lengths of CD and BE ?



Acitivity 2

Suppose we draw a circle with the bottom side of the triangles in the picture as diameter. Find out whether the top corner of each triangle is inside the circle, on the circle or outside the circle.



Acitivity 3

In ΔABC, AB=9cm, BC= 12cm and AC= 15cm

a) Which type of triangle is this?

b) If we draw a circle with AB as diameter, where will be the position of C ?

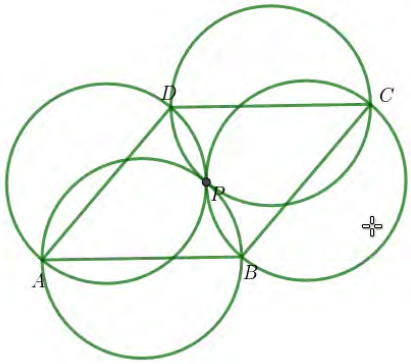
c) If we draw a circle with AC as diameter, where will be the position of B ?

Acitivity 4

In the picture, circles are drawn with the sides of rhombus ABCD as diameters. If we join BD

a)Which type of triangles are $\Delta ABD, \Delta CBD$?

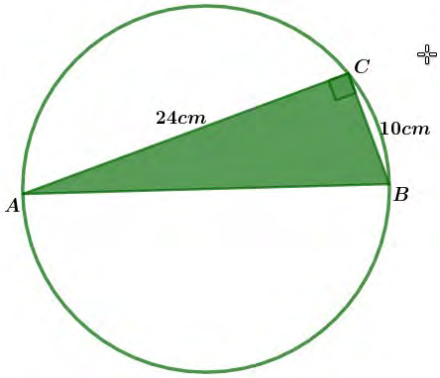
b) Prove that these four circles pass through a common point



Acitivity 5

In the figure, AC=24cm, BC=10cm, and $\angle C = 90^0$.

Find the perimeter and area of the circle



ClassVideo Link	Scan for Video
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Class: 8	Subject: Maths	Date: 24-8-20	WorksheetNo: 7

Lesson: Equations L.O. : Algebraic Methods

Activity1

40 Added to 5 times of a number makes 11 times the number. What is the number ?

Activity 2

10 Added to 2 times of a number is equal to 4 added to 3 times of the number.What is the number?

Activity 3

6 Times of a number is equal to 2 more than 3 added to 4 times the number.What is the number?

Activity 4

Ammu's mother's age is 3 times of Ammu's age. If 8 added to Ammu's age is equal to 16 subtracted from Ammu's mother's age. What is Ammu's age?

Activity 5

12 Added to 12 times of a number is equal to 15 times the number,What is the number?

Click for video	Scan for class video
Play	

Class : 10	Subject : Maths	Date : 26/08/20	Worksheet No :12

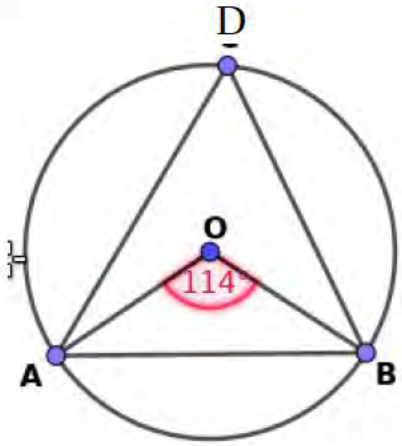
Lesson : CIRCLES

concepts

If we join the ends of a non-diametrical chord to any point on the larger part of the circle, we get an angle which is half the size of the angle we get by joining them to the centre of the circle.

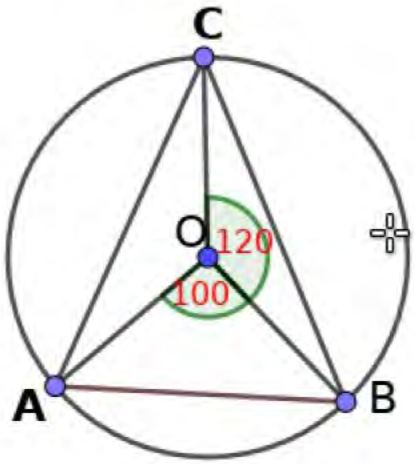
Activity - 1

AB is the chord of a circle with centre O .
If <AOB = 114^0 then find <ADB .



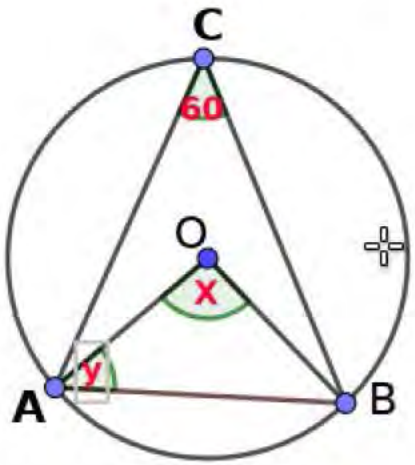
Activity - 2

In figure shown below , O is the centre of the circle. Find all the three angles of triangle ABC from the figure.



Activity - 3

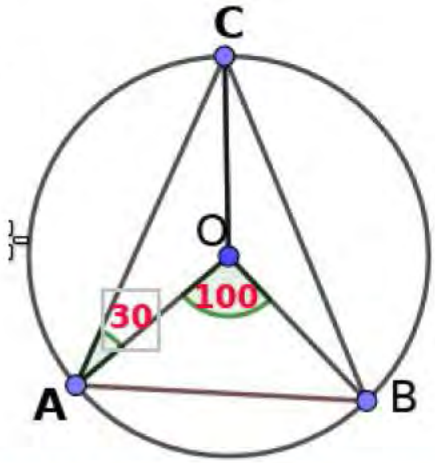
In figure, O is the centre of the circle. Find the values of x and y from the given figure.



Activity - 4

AB is the chord of a circle with center O. If $\angle AOB = 100^0$, $\angle CAO = 30^0$ then find the values of the following angles.

(a) $\angle ACB$
(b) $\angle ACO$
(c) $\angle AOC$
(d) $\angle OAB$
(e) $\angle BOC$



CLASS VIDEO LINK

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Class: X	Subject: MATHS	04/09/2020	Worksheet No: 13

LESSON: CIRCLES

LEARNING OBJECTIVES

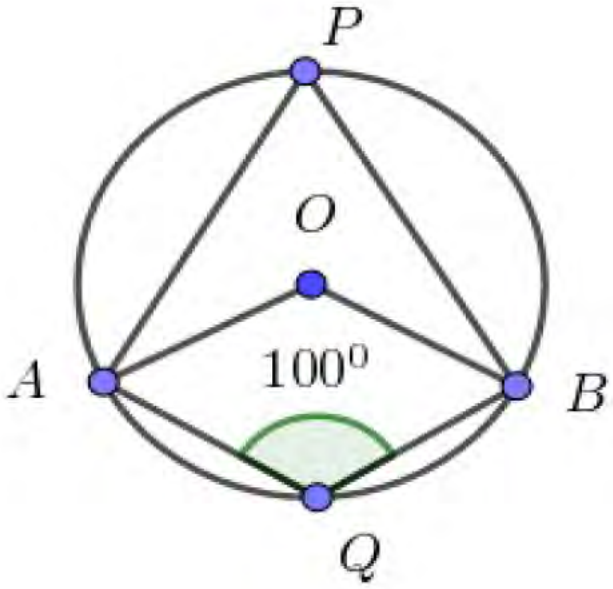
**** THE ANGLE MADE BY ANY ARC OF A CIRCLE ON THE ALTERNATE ARC IS HALF THE ANGLE MADE AT THE CENTRE***

**** THE ANGLE MADE BY AN ARC OF A CIRCLE ON THE ALTERNATE ARC ARE EQUAL.***

**** A PAIRS OF ANGLES ON AN ARC AND ITS ALTERNATE ARE SUPPLEMENTARY.***

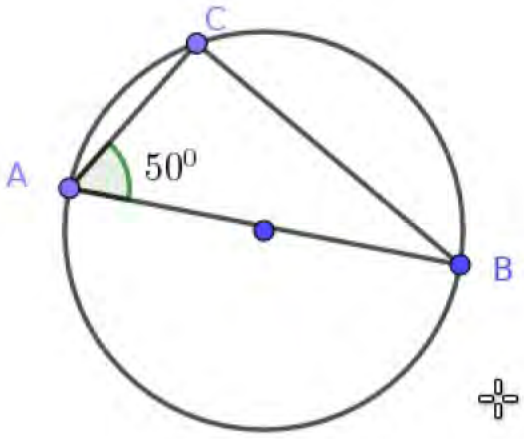
ACTIVITY 1.

"O" is the centre and A,B,P,Q are the points on the circle.If <AQB=100° then find <APB and <AOB ?



ACTIVITY 2.

AB is the diameter and C be any point on the circle .Find all angles of triangle ABC

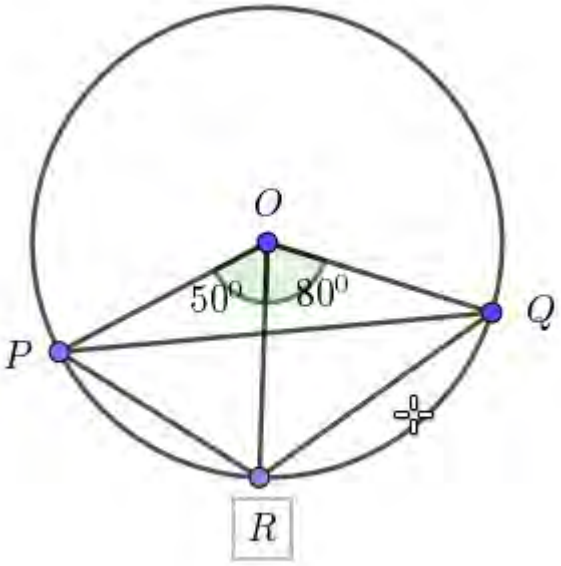


ACTIVITY 3.

O is the centre and P,Q and R are the points on the circle. If < POR=50°, < QOR=80°

then find,

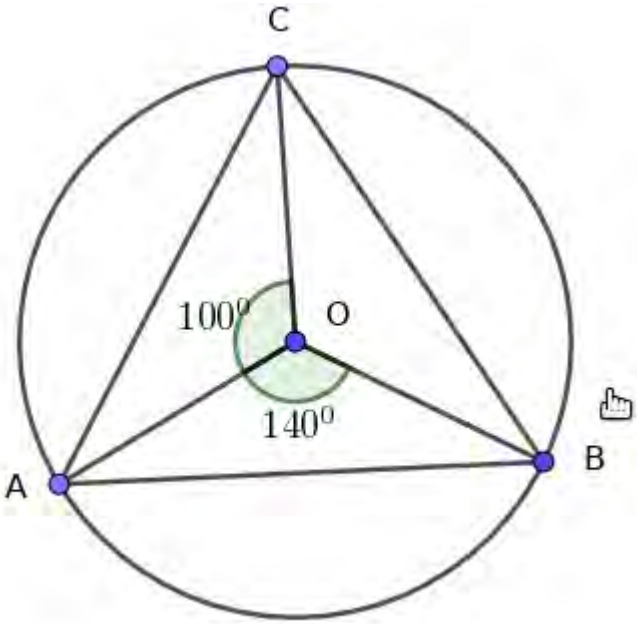
a)< OPR
b)< OQR
c)< ORP
d)<ORQ
e)<PRQ



ACTIVITY 4.

O is the centre and A,B and C are the point on the circle. If <AOC=100°, < AOB=140°

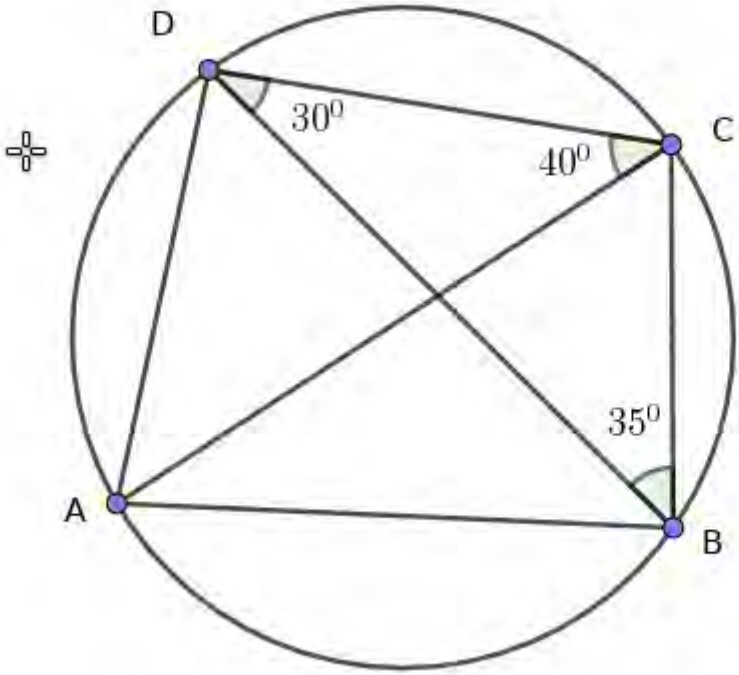
then find a) < BOC b) < OAB c) < OAC d) < OBC e) < CA B f) < ACB g) < ABC



ACTIVITY 5.

A,B,C and D are the points on the circle . If < BDC=30°, < ACD=40°, < CBD=35° then find.

a) < ABD
b) < CAD
c) < BAC
d) < ABC
e) < ADC
f) < BCD
g) <D A B



CLASS VIDEOLINK	SCAN FOR CLASS VIDEO

KUTTIPPURAM Sub dist.

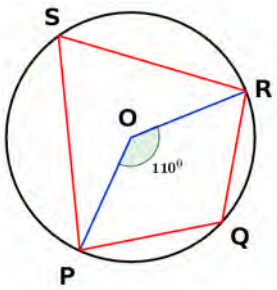
Silent BellS

ഫസ്റ്റ്ബെൽ - അനുബന്ധ പഠനസഹായകസാമഗ്രി

Class : 10	Subject : Maths	Date : 07.09.2020	Worksheet No . 14

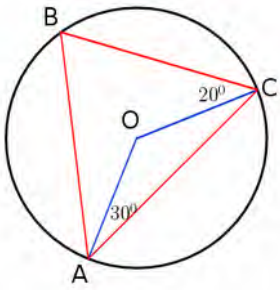
LESSON : CIRCLES

ACTIVITY 1



In the figure 'O' is the centre of the circle and P,Q,R,S are points on it . $< POR = 110^0$. Find $<$ PSR and $<$ PQR

ACTIVITY 2



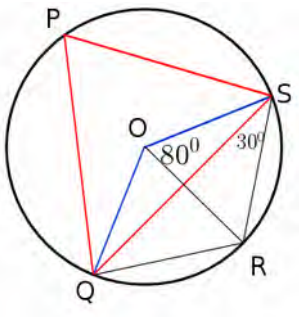
'O' is the centre of the circle and A,B,C are three points on it.

a) Find all angles of Δ ABC

b) Find all angles of Δ OBC , Δ OBA , Δ OAC

ACTIVITY 3

P,Q,R and S are four points on a circle with centre O . $<$ ROS $=80^0$ and $<$ QSR $= 30^0$. Find the following angles .



a) $<$ QOR

b) $<$ SQR

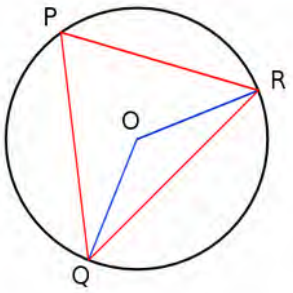
c) $<$ OSQ

d) $<$ P

ACTIVITY 4

In the figure ' O ' is the centre of the circle and PQR is an equilateral triangle .

Find



a) $<$ QOR

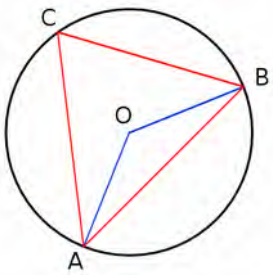
b)$<$ OQR

c)$<$ ORQ

d)$<$ OQP

ACTIVITY 5

O is the centre of the circle and A , B, C are three points on it .



Prove that $<$ OAC + $<$ ABC = 90^0

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Class Video

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Silent BellS

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CLASS :10	Subject :Mathematics	Date : 8-9-20	Worksheet No : 15

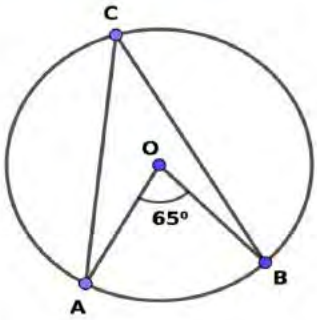
Lesson: Circles

1.

(a) In the figure $\angle AOB = 65^0$ find $\angle ACB$.

(b) Draw a circle of radius 3 cm and construct an angle $32\frac{1}{2}^0$ in it.

(c) In the same figure construct an angle $16\frac{1}{4}^0$.



2. Construct a triangle of circum radius 3.5 cm and two of the angles 60° and 40°.

3. Construct an equilateral triangle with circum radius 4cm and find the length of its sides.

4. In each problem below, draw a circle and chord to divide it into two parts such that the parts are as specified.

a) All angles in one part 70°.

b)All angles in one part 100°.

c) All angles in one part 3 times the angles in other part.

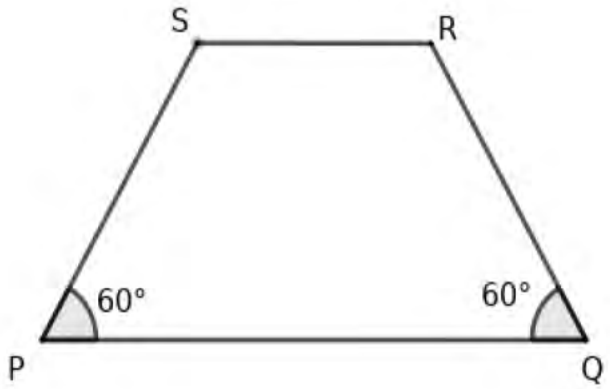
Class video Link	Scan for Video

Class: 10	Subject: Maths	Date: 14/9/20	Worksheet No: 18

Lesson: Circles L.O. : Cyclic quadrilaterals

Activity 1

In the figure quadrilateral PQRS is a trapezium. Also ∠P = ∠Q = 60°. Then find the following,



a) ∠S = ...

b) ∠R = ...

c) ∠P + ∠R = ...

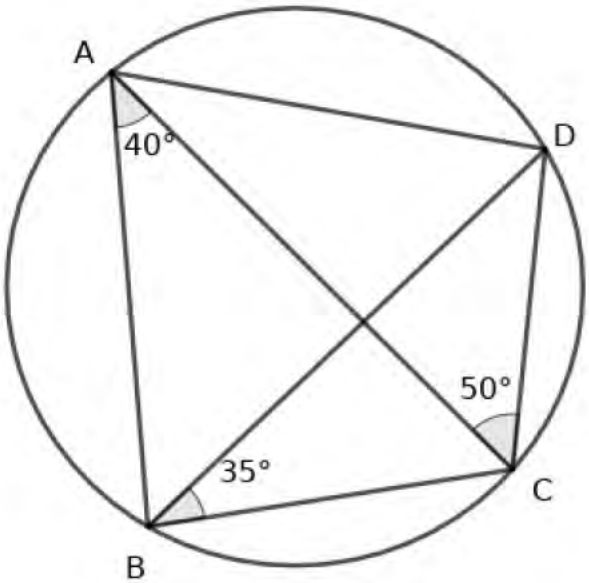
d) ∠Q + ∠S = ...

e) Is trapezium PQRS cyclic?

f) Is trapezium PQRS an isosceles trapezium?

Activity 2

In the figure ABCD is a cyclic quadrilateral. ∠BAC = 40°, ∠CBD = 35°, ∠ACD = 50° then,



a) ∠BDC = ...

b) ∠ABD = ...

c) ∠CAD = ...

d) ∠ADB = ...

e) ∠ACB = ...

Activity 3

In the figure ABCD is a cyclic quadrilateral. ∠EBC = 100°, ∠BAD = 70°.find the following,

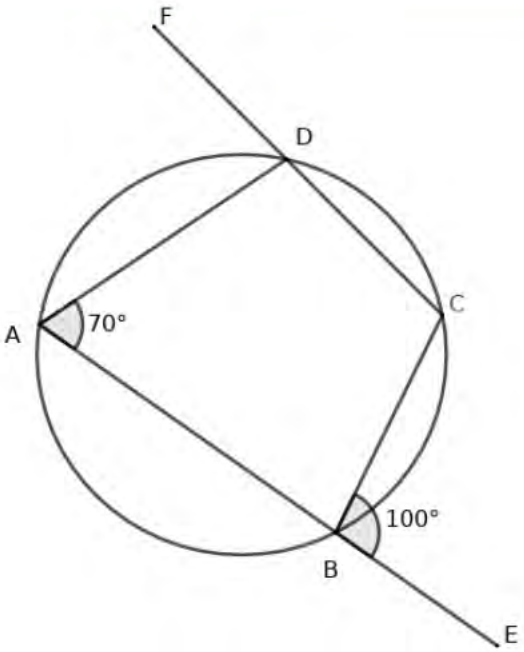
a) ∠ABC = ...

b) ∠ADC = ...

c) ∠ADF = ...

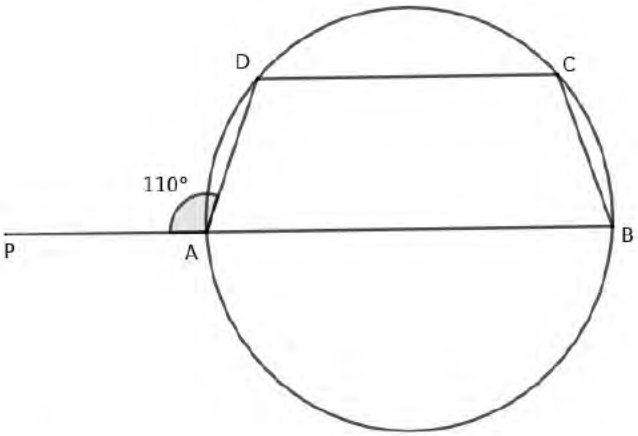
d) ∠BCD = ...

e) ∠EBC + ∠ADF = ...



Activity 4

In the figure AB and CD are parallel lines. If ∠PAD = 110°, find all angles of quadrilateral ABCD.



CLASS VIDEO LINK	SCAN FOR CLASS VIDEO
CLICK HERE	

Class:X	Subject:Mathematics	Date:15-09-2020	WorksheetNo:19

Lesson & LO :CIRCLES, CYCLIC QUADRILATERAL

Activity 1

In parallelogram ABCD,if $\angle A = 80^0$

a)$\angle C$=___

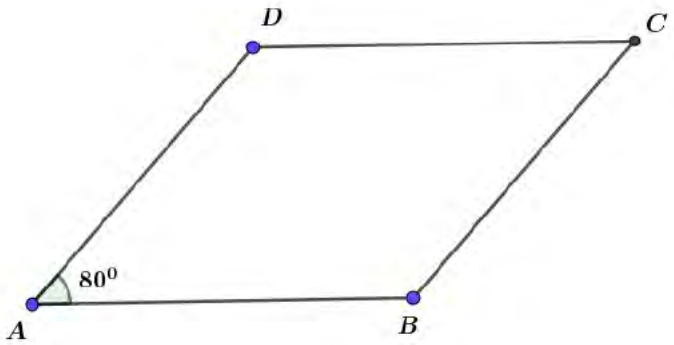
b)$\angle B$=___

c)$\angle D$=___

d)$\angle A+\angle C$=___

e)$\angle B+\angle D$=___

f)Is quadrilateral ABCD cyclic?justify



Activity 2

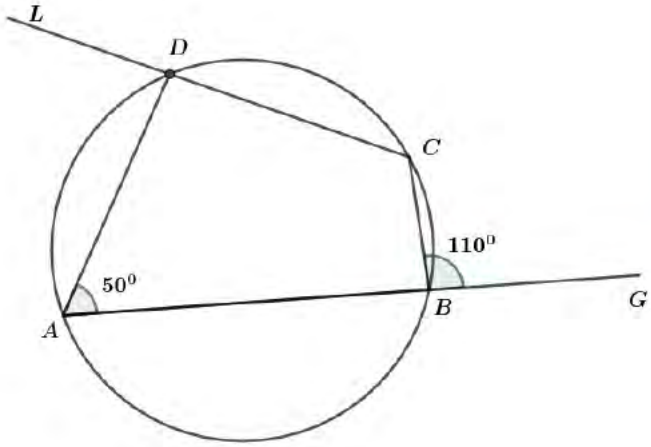
ABCD is a cyclic quadrilateral and $\angle A=50^0, \angle GBC=110^0$

a)find the other angles of quadrilateral ABCD

b)$\angle ADL$=____

c)$\angle ADL+\angle GBC$=___

d)Are the exterior angles at each opposite vertex of a cyclic quadrilateral supplementary?



Activity 3

Circles in the figure intersect at P and Q. Lines through these points meet the circles at A,B,C,D. If AD=BC and $\angle A=\angle B=70^0$,

a)$\angle PQC$=__

b)$\angle QPD$=__

c)$\angle PDC$=__

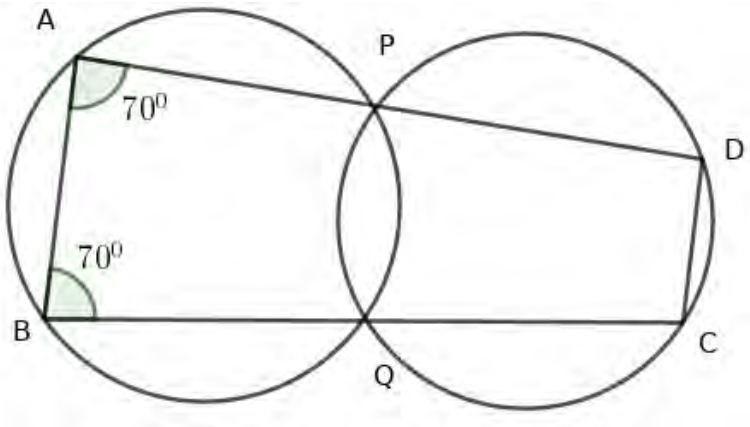
d)$\angle QCD$=__

e)$\angle A+\angle QCD$=__

f)$\angle B+\angle PDC$=__

g)Is ABCD cyclic?

h)Which type of quadrilateral is ABCD?
(Rhombus,Parallelogram,Isosceles Trapezium)



Click to play video	*Scan for video*
	

Class: 10	Subject: MATHS	Date: 17/09/2020	WorksheetNo: 20

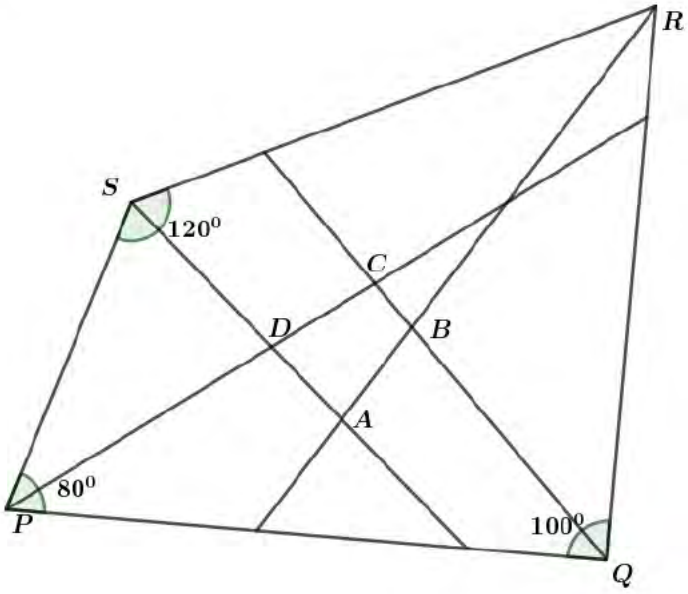
Lesson :CIRCLES LO : CYCLIC QUADRILATERAL

Activity 1 :

1. In the picture bisectors of adjacent angles of the quadrilateral PQRS intersect at A,B,C,D.

If $\angle SPQ = 80°, \angle PQR = 100°$, $\angle PSR = 120°$,

a. $\angle QRS$ =.....



b. In $\triangle PCQ$
$\angle CPQ = ?$
$\angle CQP = ?$
$\angle PCQ = ?$

c. In $\triangle ARS$
$\angle ARS = ?$
$\angle ASR = ?$
$\angle SAR = ?$

d. $\angle BAD + \angle BCD = ?$

e. In $\triangle QBR$
$\angle BQR = ?$
$\angle BRQ = ?$
$\angle QBR = ?$

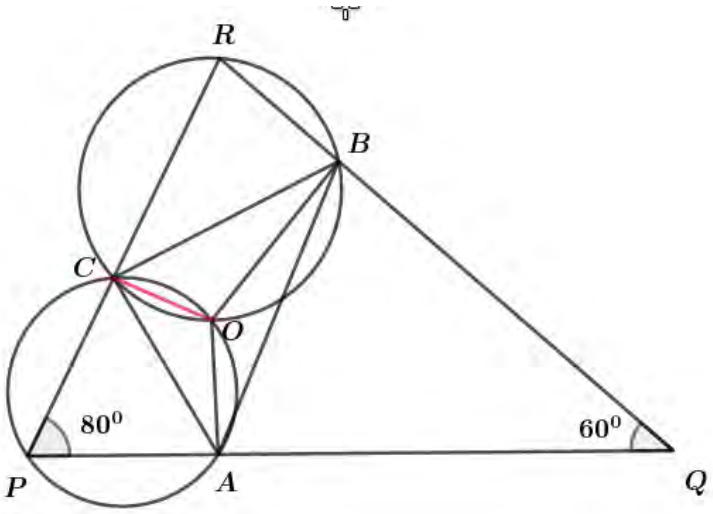
f. In $\triangle DPS$
$\angle DPS = ?$
$\angle DSP = ?$
$\angle PDS = ?$

g. $\angle ABC + \angle ADC = ?$

h. Is ABCD a cyclic quadrilateral ? why ?

Activity 2 :

In the figure, points A,B,C are marked on the sides PQ,QR,PR of △ PQR and the circumcircles of △ CBR, △ CPA are drawn,O is a point where these circles intersect.



i). In$\triangle PQR$, If $\angle P = 80°$, $\angle Q = 60°$
$\angle R = ?$

ii). In cyclic quadrilateral BOCR , AOCP

a. $\angle BOC = ?$
b. $\angle AOC = ?$
c. $\angle AOC + \angle BOC = ?$
d. $\angle AOC + \angle BOC + \angle AOB = ?$
e. $\angle AOB = ?$
f. $\angle AOB + \angle AQB = ?$
g. Is AOBQ a Cyclic Quadrilateral? Why ?

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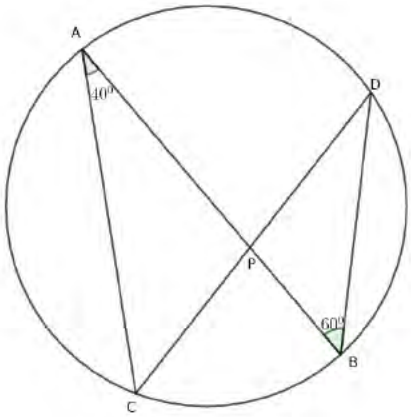
Class: 10	Subject: Maths	Date: 18/9/2020	Worksheet No: 21

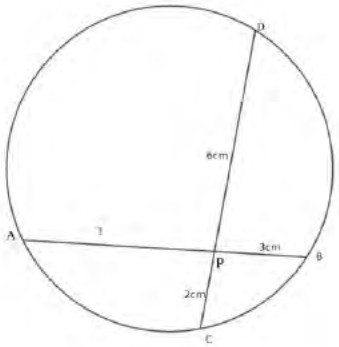
Lesson: Circles L.O. : Intersecting chords



Activity 1

In figure, the chords AB and CD intersect at P. $\angle A=40^0$, $\angle B=60^0$

a) Find the measure of $\angle C$.
b) Find the measure of $\angle D$.
c) Find the measure of $\angle APC$.
d) Find the measure of $\angle BPD$.
e) Are the triangles ΔAPC and Δ BPD similar? Why?
f) $\frac{PA}{-}=\frac{PC}{PB}$
g)PAxPB=PC x _



Activity2

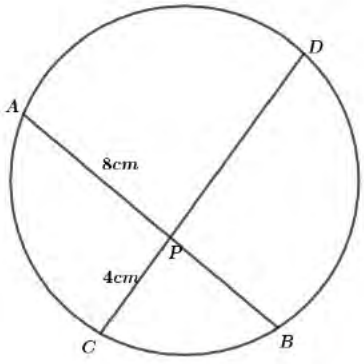
The chords of the circle AB and CD intersect at P
PB=3cm
PC=2cm
PD=6cm

a) Find PA.
b) Find AB.

Activity3

In figure, the chords of the circle AB and CD intersect at P
AB=14cm
PA=8cm
PC=4cm

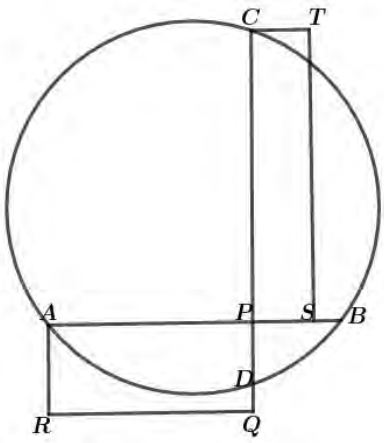
a) PB=---
b) Find PD and CD



Activity 4

In the given figure,the breadth of the rectangle APQR is same as PB and the breadth of the rectangle PSTC is same as PD. (That is,PQ=PB, PS=PD)
AP=12cm. The area of the rectangle APQR =60cm^2

a) What is the area of the rectangle PSTC ?
b) Find the breadth of the rectangle APQR.
c) Find PB.
d) If PC=15cm, find the breadth of the rectangle PSTC.
e) Find PD.



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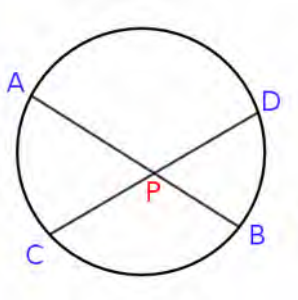
ഫസ്റ്റ്ബെൽ – അനുബന്ധ പഠനസഹായകസാമഗ്രി

Class : 10	Subject : Maths	Date : 22.09.2020	Worksheet No . 22

അദ്ധ്യായം : വൃത്തങ്ങൾ



പ്രവർത്തനം 1

ചിത്രത്തിൽ AB,CD എന്നീ ഞാണുകൾ വൃത്തത്തിനകത്ത് P എന്ന ബിന്ദുവിൽ ഖണ്ഡിക്കുന്നു. ഇത് ഉപയോഗിച്ച് താഴെ തന്നിട്ടുള്ളവ പൂരിപ്പിക്കുക

PA	PB	PC	PD	AB	CD
6		3			11
	4		6	7	
12		9			13
	3		9	9	
10		4			9
	5		10	11	

പ്രവർത്തനം 2

5 cm നീളവും , 4 cm വീതിയും ഉള്ള ഒരു ചതുരം വരക്കുക. ഇതേ പരപ്പളവും ഒരു വശം 6 cm ഉം ആയ മറ്റൊരു ചതുരം വരക്കുക.

പ്രവർത്തനം 3

7 cm നീളവും , 5 cm വീതിയും ഉള്ള ഒരു ചതുരം വരക്കുക. ഇതേ പരപ്പളവും ഒരു വശം 6 cm ഉം ആയ മറ്റൊരു ചതുരം വരക്കുക.

പ്രവർത്തനം 4

വശങ്ങളുടെ നീളങ്ങൾ 4 cm , 6 cm എന്നിവയായ ചതുരത്തിന്റെ പരപ്പളവിന് തുല്യ പരപ്പളവുള്ള ഒരു വശം 7 cm ആയ മറ്റൊരു ചതുരം വരക്കുക ?

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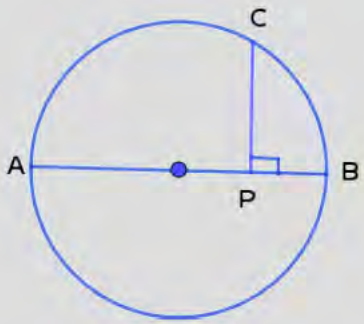
Class Video

CLASS :10	Subject : Mathematics	Date : 24-9-20	Worksheet No : 23

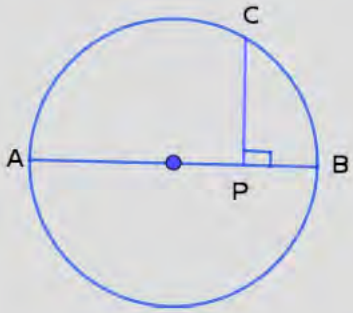
Lesson : Circles

L O : The product of the parts into which the diameter of a circle is cut by a perpendicular chord is equal to the square of half of the length of the chord. PA x PB = PC^2

1. P is a point on diameter AB of the circle. AB is perpendicular to PC. AB= 11Cm, PA= 8cm. Then find PB and PC?



2. In the figure AB is the diameter of the circle. PA=12cm, PC= 6cm. Then find PB and AB?

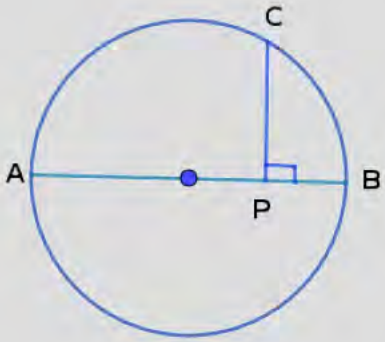


3. AB is perpendicular to PC in the circle with AB as diameter. PA=5cm , PB=4cm .Then

a) Find PC?

b) Draw a line of length √20 cm

c) Draw a circle of area 20π cm^2



4. a) Draw a line of length √18 cm

b) Draw a square of area $18cm^2$

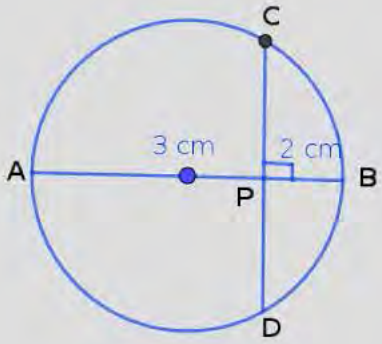
5) In a circle with diameter AB, PA= 3cm , PB=2cm. Then

a) Find PC.

b) Find CD.

c) Draw a line of length √6 cm

d) Draw an equilateral triangle of side 2√6 cm.



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