



# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics

Class- X

Date:28/06/2021

### Worksheet-4

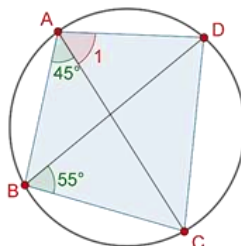
#### Chapter- Theorem on cyclic quadrilateral

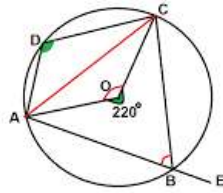
#### Topic- properties of cyclic quadrilateral

#### 1. Choose the correct alternative

1x15=15

- a) In a cyclic quadrilateral ABCD, AB is a diameter and AC is a diagonal.  $\angle ADC = 120^\circ$ , the value of  $\angle BAC$  is i)  $50^\circ$  ii)  $60^\circ$  iii)  $30^\circ$  iv)  $40^\circ$
- b) In a cyclic quadrilateral ABCD, AB is a diameter and AC is a diagonal. If  $\angle ABC = 65^\circ$ ,  $\angle DAC = 40^\circ$ , the value of angle BCD is i)  $75^\circ$  ii)  $105^\circ$  iii)  $115^\circ$  iv)  $80^\circ$
- c) In a cyclic quadrilateral ABCD, AB is a diameter and AC is a diagonal.  $\angle CAB = 25^\circ$ , then find  $\angle DAC$  i)  $50^\circ$  ii)  $25^\circ$  iii)  $130^\circ$  iv)  $40^\circ$
- d) ABCD is a cyclic quadrilateral. AB and CD are extended and they meet at P. AD and BC are extended and they meet at Q.  $\angle P : \angle Q = 2:1$ , Find angles P and Q i)  $30^\circ$  and  $60^\circ$  ii)  $45^\circ$  and  $50^\circ$  iii)  $60^\circ$  and  $30^\circ$  iv)  $120^\circ$  and  $60^\circ$
- e) Find  $\angle BCD$  i)  $100^\circ$  ii)  $120^\circ$  iii)  $150^\circ$  iv) none of these

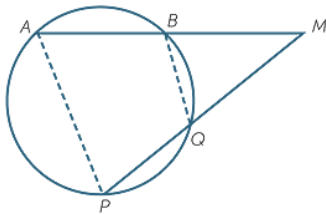




f) Find angle ABC i)  $50^\circ$  ii)  $70^\circ$  iii)  $85^\circ$  iv) none of these

g)  $\angle BMQ = 70^\circ$  and  $AM = PM$ . Find angle ABQ i)  $120^\circ$  ii)  $110^\circ$  iii)  $125^\circ$

iv) none of these



h) ABCD is a cyclic quadrilateral. BA is extended to the point F. If  $AE \parallel CD$ ,

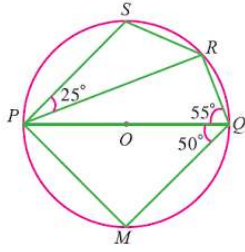
$\angle ABC = 92^\circ$  and  $\angle FAE = 20^\circ$ , then find  $\angle BCD$  i)  $20^\circ$  ii)  $88^\circ$  iii)  $108^\circ$

iv) none of these

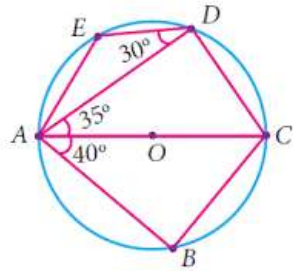
i) Two circles intersect each other at two points C and D. Two straight lines through the points D and C intersect one circle at A and B points and intersect other circle at E and F. If  $\angle DAB = 75^\circ$ , Find  $\angle DEF$

i)  $75^\circ$  ii)  $60^\circ$  iii)  $70^\circ$  iv) none of these

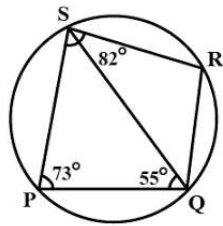
j) Find  $\angle SPM$  i)  $105^\circ$  ii)  $100^\circ$  iii)  $95^\circ$  iv) none of these



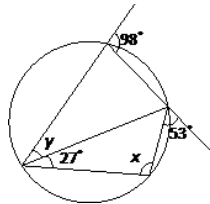
k) Find  $\angle EAD$  i)  $30^\circ$  ii)  $75^\circ$  iii)  $25^\circ$  iv) none of these



l) Find  $\angle SQR$ , i)  $43^\circ$  ii)  $65^\circ$  iii)  $60^\circ$  iv) none of these

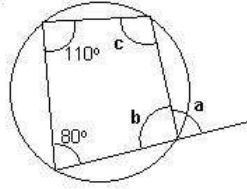


m) Find  $y$ , i)  $25^\circ$  ii)  $36^\circ$  iii)  $26^\circ$  iv) none of these

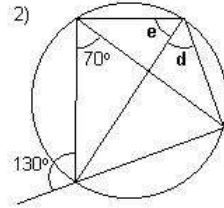


n) In reference to figure 1, Find C and B i)  $100^\circ$  and  $70^\circ$  ii)  $110^\circ$  and  $80^\circ$   
 iii)  $85^\circ$  and  $95^\circ$  iv) none of these

1)



2)



o) with reference to the above diagram no. 2 find e i)  $60^\circ$  ii)  $70^\circ$  iii)  $75^\circ$  iv) none of these

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