ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

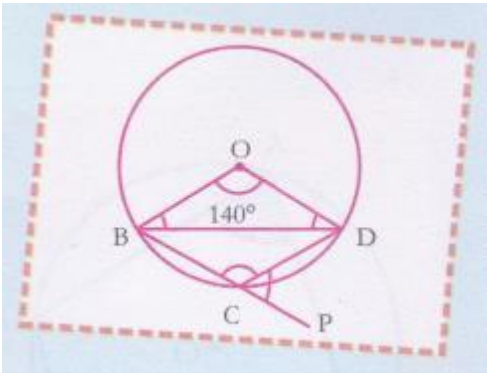
SUBJECT : Algebra and Geometry **Work sheet 18**

Marks:15 **Circles - 3**

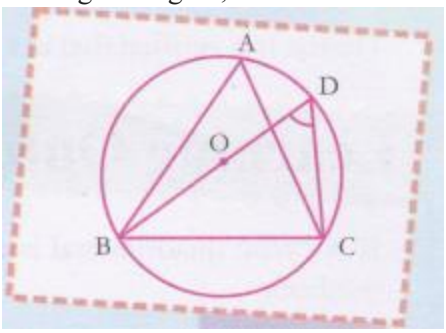
Date:27.4.2020

Answer all the following questions(1×15=15)

1. ABCD is a cyclic quadrilateral, in which ∠ABC = 90°. The value of ∠ADC is:
   (i) 90°
   (ii) 45°
   (iii) 70°
   (iv) none of these
2. In a circle with centre O, the angle subtended by arc BCD at the centre is 140°. BC is produced to P. Find ∠DCP:



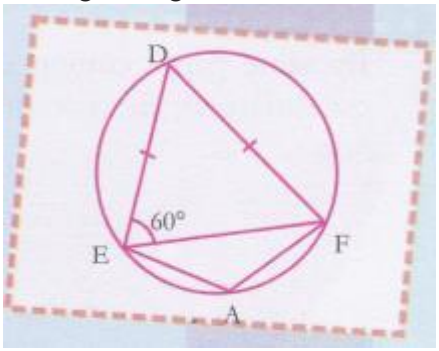
   (i) 70°
   (ii) 35°
   (iii) 280°
   (iv) none of these
3. In the given figure, ΔABC is an isosceles triangle with AB = AC and ∠ABC = 50°. Find ∠BDC:



   (i) 100°
   (ii) 25°

(iii) 80°
(iv) none of these

4. In the given figure, ΔDEF is an isosceles triangle with DE = DF and ∠DEF = 60°. Find ∠EAF:



(i) 120°
(ii) 30°
(iii) 300°
(iv) none of these

5. ABCD is a cyclic quadrilateral in which BC is parallel to AD, ∠ADC =110°, ∠BAC = 50°. Find ∠DAC
(i) 100°
(ii) 30°
(ii) 60°
(iv) none of these

6. ABCD is a cyclic quadrilateral. If ∠BCD = 100°, ∠ABD = 70°, the value of ∠ADB will be:
(i) 60°
(ii) 30°
(iii) 150°
(iv) none of these

7. If PQRS is a cyclic quadrilateral, ∠P = 3x°, ∠Q =y°, ∠R=x°, ∠S = 5y°, find the value of x° and y°.
(i) 45°, 30°
(ii) 90°, 60°
(iii) 90°, 30°
(iv) none of these

8. ABCD is a cyclic trapezium in which AD || BC, if ∠B = 70°, find the value of ∠A:
(i) 70°
(ii) 110°
(iii) 35°
(iv) none of these

9. If ABCD is a cyclic quadrilateral, in which ∠DBC = 70°, ∠BAC = 40°, find ∠BCD :
(i) 100°
(ii) 40°
(iii) 70°
(iv) none of these

10. Find the measure of the opposite angles of a cyclic quadrilateral if one of them is 11/4 of the other:
(i) 48°, 132°
(ii) 29°, 132°
(iii) 48°,264°
(iv) none of these

11. If one of the angles of a cyclic quadrilateral is 30°, then the value of its opposite angle is
(i) 150°
(ii) 90°
(iii) 60°

(iv) 180°

12. If a cyclic quadrilateral is a parallelogram, then the parallelogram is a

(i) rectangle

(ii) Square

(iii) Rhombus

(iv) None of these

13. The sum of opposite angles of a cyclic quadrilateral is

(i) 180°

(ii) 90°

(iii) 360°

(iv) 100°

14. What will be the name of a quadrilateral if the pair of opposite angles is supplementary

(i) concyclic

(ii) Cyclic

(iii) Non cyclic

(iv) None of these

15. A quadrilateral is called cyclic if all the four vertices are

(i) concyclic

(ii) Cyclic

(iii) Non cyclic

(iv) None of these

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