ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Algebra & GeometryWork sheet28

Marks:15Circles

Date:31.5.21

Answer all thefollowing questions(1×15=15)

MULTIPLE-CHOICE QUESTIONS (MCQ)

Choose the correct answer in each of the following:

1. The radius of a circle is 13 cm and the length of one of its chords is 10 cm. The distance of the chord from the centre is

(a) 11.5 cm (b) 12 cm

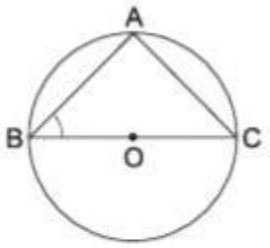
(c) $\sqrt{69}$ cm (d) 23 cm

2. A chord is at a distance of 8 cm from the centre of a circle of radius 17 cm. The length of the chord is

(a) 25 cm (b) 12.5 cm

(c) 30 cm (d) 9 cm

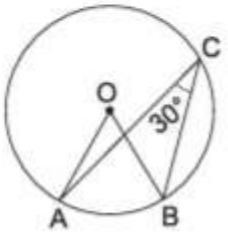
3. In the given figure, BOC is a diameter of a circle and $AB = AC$. Then, $\angle ABC = ?$



(a) 30° (b) 45°

(c) 60° (d) 90°

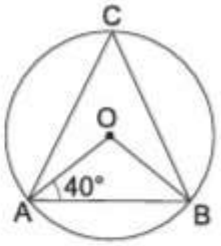
4. In the given figure, O is the centre of a circle and $\angle ACB = 30°$. Then, $\angle AOB = ?$



(a) 30° (b) 15°

(c) 60° (d) 90°

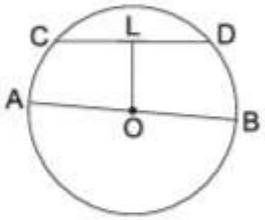
5. In the given figure, O is the centre of a circle. If $\angle OAB = 40°$ and C is a point on the circle then $\angle ACB = ?$



(a) 40° (b) 50°

(c) 80° (d) 100°

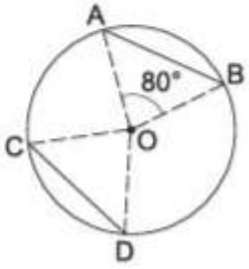
6. In the given figure, AOB is a diameter of a circle with centre O such that $AB = 34$ cm and CD is a chord of length 30 cm. Then, the distance of CD from AB is



(a) 8 cm (b) 15 cm

(c) 18 cm (d) 6 cm

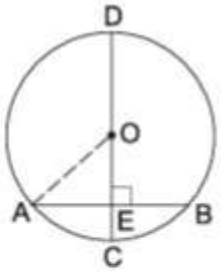
7. AB and CD are two equal chords of a circle with centre O such that $\angle AOB = 80°$. Then, $\angle COD = ?$



(a) 100° (b) 80°

(c) 120° (d) 40°

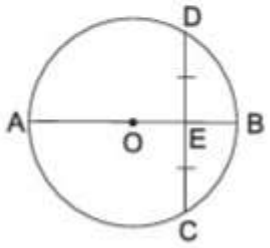
8. In the given figure, CD is the diameter of a circle with centre O and CD is perpendicular to chord AB. If $AB = 12$ cm and $CE = 3$ cm then radius of the circle is



(a) 6 cm (b) 9 cm

(c) 7.5 cm (d) 8 cm

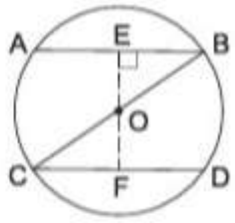
9. In the given figure, O is the centre of a circle and diameter AB bisects the chord CD at a point E such that $CE = ED = 8$ cm and $EB = 4$ cm. The radius of the circle is



(a) 10 cm (b) 12 cm

(c) 6 cm (d) 8 cm

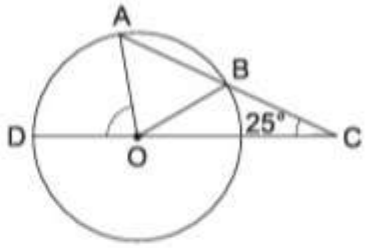
10. In the given figure, BOC is a diameter of a circle with centre O. If AB and CD are two chords such that $AB \parallel CD$ and $AB = 10$ cm then $CD = ?$



(a) 5 cm (b) 12.5 cm

(c) 15 cm (d) 10 cm

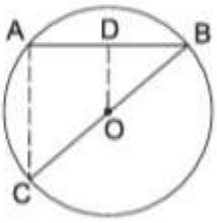
11. In the given figure, AB is a chord of a circle with centre O and AB is produced to C such that $BC = OB$. Also, CO is joined and produced to meet the circle in D. If $\angle ACD = 25°$ then $\angle AOD = ?$



(a) 50° (b) 75°

(c) 90° (d) 100°

12. In the given figure, AB is a chord of a circle with centre O and BOC is a diameter. If $OD \perp AB$ such that $OD = 6$ cm then $AC = ?$



(a) 9 cm (b) 12 cm

(c) 15 cm (d) 7.5 cm

13. An equilateral triangle of side 9 cm is inscribed in a circle. The radius of the circle is

(a) 3 cm (b) $3\sqrt{2}$ cm (c) $3\sqrt{3}$ cm (d) 6 cm

14. The angle in a semicircle measures

(a) 45° (b) 60° (c) 90° (d) 36°

15. Angles in the same segment of a circle are

(a) equal (b) complementary

(c) supplementary (d) none of these