INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2026-27

CLASS: IX SUBJECT: Mathematics DATE: 01/11/26

LESSON 8 : MEASURING SPACE PERIMETER AND AREA

1. An isosceles right triangle has area 8cm^2. The length of its hypotenuse is

[a) $\sqrt{32}cm$ $b)$ $\sqrt{96}cm$ $c)$ $\sqrt{112}cm$ $d)$ $\sqrt{24}cm$]

2. The sides of a triangle are 17cm , 25cm and 26cm. The length of altitude to the longest side is

[a) 15.69 b) 13.59 c) 12.23 d) 10.59]

3. A triangle and a parallelogram are on the same base and same area. If the sides of the triangle are 26cm, 28cm and 30cm and parallelogram stands on the base 28cm, then the height of the parallelogram is

[a) 8cm b) 10cm c) 12cm d) 14cm]

4. If the area of a sector of a circle is 7/20 of area of a circle, then angle at the centre is

[a) 110 b) 130 c) 110 d) 126]

5. If the length of an arc of a circle of diameter 84cm is 88cm, then the angle subtended by the arc at the centre is

[a) 120 b) 90 c) 60 d) 30]

6. A wire is in the shape of a square of side 10cm. If the wire rebent to a rectangle of length 12cm , find its breadth? Which shape encloses more area ?

7. The area of a rhombus is 96cm^2. If the length of one of its diagonal is 12cm, find the length of other diagonal and perimeter .

8. Find the length of the hypotenuse of an isosceles right angled triangle, having an area of 200cm^2 . [$20\sqrt{2}cm$ }

9. Calculate the area and height of an equilateral triangle whose perimeter is 60cm.
[ans : $100\sqrt{3}, 10\sqrt{3}$cm

10. AD is a median of triangle. If area of triangle ADC = 24cm^2 and BC= 16cm then find the height of triangle to the base BC. [3CM

11. ABC is a right triangle with AB= 6CM and AC = 8 cm. A circle with centre O is inscribed in the triangle. Calculate the radius r of the inscribed circle. [2cm

12. Find the area of a quadrilateral PQRS with PQ=17CM, QR= 8CM, RS=13CM , PS=14CM and

$< PRQ = 90^0$ [144cm^2

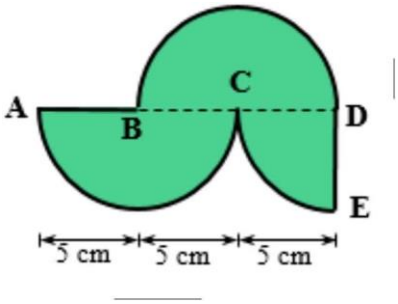
13. A bicycle makes 5000 revolutions in moving 11km. Find the diameter of the wheel. [70cm

14. In a circle of radius 21cm , an arc subtend an angle of 60^0 at the centre. Find

i) the length of the arc ii) area of the sector formed by the arc. Iii) area of the segment formed by the corresponding chord. [22cm , 231cm^2 , 231- $441\sqrt{3}/4$

15. The minute hand of a clock is 10cm long . Find the area on the face of the clock described by the minute hand between 8:00am and 8:25am.

16. Fimd the area and perimeter of the following





AB=1CM , BC=2CM, CD=3CM,DE=4CM

(6) The figure shows a rectangle and 6 identical semicircles in a circle. Find the area of the shaded part. (Take $\pi = 3.14$.)

