

PERIMETER AND AREA OF PLANE FIGURES

MATHEMATICS

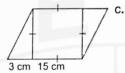
CLASS 8TH

- 1. Find the area and perimeter of the following figures.
- a) Rectangle with length 5 cm and breadth 4cm.
- b) Right triangle with base 4 cm and height 3 cm.
- c) Square with side 6 cm.
- d) Rhombus with base 14 cm and height 9cm.
- **2.** Find the area of the shaded portion in the following figures. (π = 3.14)

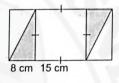
a.



b.



d.



- **3.** Find the area of a triangle having base 7 cm and height 8 cm.
- **4.** A rectangular field has dimensions 30 m X 50 m. Find the cost of fencing the field at the rate of 20 Rs. per m.
- 5. The diameter of a wheel is 70 cm. Find the distance covered by Itie wheel In 5 revolutions. $(\pi = \frac{22}{7})$
- **6.** The base and the height of a parallelogram are in the ratio 1:3. Its area is 12 sq cm. Find the base and height.
- **7.** The base and the hypotenuse of a right angled triangle are 12cm and 20 cm. Find its perimeter and area.
- **8.** The floor of a rectangular room has length 4 m and breadth 3.2 m. Find the number of tiles required to cover the floor, if each side of a tile measures 40 cm.
- **9.** Four maximum equal sized circular plates are cut from a rectangular sheet of paper with dimensions 56cm x 15cm. What is the area of the remaining sheet of paper?
- **10.** What is the perimeter of each circular plate? $(\pi = \frac{22}{7})$

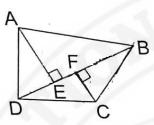


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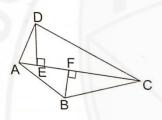
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- **1.** Find the area of the quadrilaterals in the following figures.
 - a. BD = 12 cm
 - AD = 8 cm
 - CF = 5 cm



- b. DE = 7 cm
 - BF = 5 cm
 - AC = 13 cm



- c. AB = 14 cm
 - BD = 12 cm
 - DE = 5 cm
 - CF = 4 cm
- d. AB = 16 cm
 - DE = 6 cm
 - BD = 10 cm
 - DC = 12cm
- **2.** Find the length or the diagonal, if the area of the quadrilateral PQRS, given below, is 60 sq. cm.
- **3.** Find the area or quadrilateral ABCD whose one diagonal, AC is 10cm long and the vertices, B and D, on the other diagonal are at a distance of 6 cm from the diagonal AC.
- **4.** The area or trapezium is 100 sq cm and its height is 8cm. Find the lengths of the two parallel sides if one side is longer than the other by 5 cm.
- **5.** Find area of a trapezium, if its parallel sides are 7 cm and 8cm and the distance between the parallel sides is 4 cm.

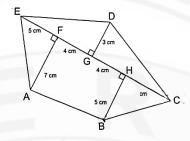
- **6.** The area of a rhombus is 24 sq cm and one of its diagonal is 6cm. Find the length of the other diagonal.
- **7.** Divide a regular hexagon to get the following shapes
 - a) 6 triangles

c) 2 trapeziums

b) I rectangle and 2 triangles

d) 1 trapezium, 1 rectangle and 2 triangles

8. Find the area or the polygon In the figure given below.



9. The diagonals of parallelogram are of lengths 6cm and San. If the diagonals are perpendicular to each other find the area and the perimeter or the parallelogram.

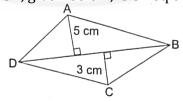


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- **1.** Select the correct alternative.
 - (a) The perimeter of n rhombus with side 14 cm is_____.
 - i. 56 sq cm
 - ii. 56 cm
 - iii. 106 sq cm
 - iv. 106 cm
 - (b) The area of a square with side 14 cm is _____
 - i. 56 sq cm
 - ii. 56 cm
 - iii. 196 sq cm
 - iv. 196 cm
 - (c) The perimeter of a parallelogram with adjacent sides 14 cm and 12 cm is_____.
 - i. 52 cm
 - ii. 52 sq cm
 - iii. 160 cm
 - iv. 168 sq cm
 - (d) The area of a circle with radius 14 cm is _____
 - i. 616cm
 - ii. 616 sq cm
 - iii. 88cm
 - iv. 88 sq cm
- 2. State true or false.
 - (a) Area of a rhombus Is the same as the product of its adjacent sides.
 - (b) Area of a right triangle is half the product of its sides including the right angle.
 - (c) Area of a trapezium Is half the product of its height and sum of its parallel sides.
 - (d) Area of a parallelogram is the same as the product of its diagonals.
- **3.** The area of a trapezium is 44 sq cm and its height Is 4 cm. Find the lengths of the two parallel sides if one side is shorter than the other by 2 cm.
- **4.** Find the area of a rhombus with diagonals having lengths 8 cm and 10 cm.
- **5.** If the area of the quadrilateral ABCD, given below, is 52 sq cm, find the length of segment BD.



6. Find the area of the polygon given below.