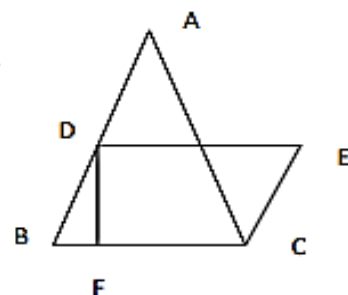


SATISH CHANDRA MEMORIAL SCHOOL
HERON'S FORMULA
EXTRA QUESTIONS

1. The semi perimeter of a triangle having the length of its sides as 20 cm, 15 cm and 9 cm is
(a) 44 cm (b) 21 cm (c) 22 cm (d) None
2. The angles of a triangle are in the ratio 5:3:7, then the triangle is
(a) Acute angled (b) Obtuse angled (c) Right triangle (d) Isosceles triangle
3. The base of an isosceles triangle whose area is 12 cm^2 and one of the equal sides is 5 cm is
(a) 6 cm (b) 8 cm (c) Both a and b (d) None of these
4. The length of each side of an equilateral triangle having an area of $9\sqrt{3} \text{ cm}^2$ is
(a) 8 cm (b) 36 cm (c) 4 cm (d) 6 cm
5. The length of the perpendicular drawn on the longest side of a scalene triangle is
(a) Largest (b) Smallest (c) No relation (d) None
6. Semi perimeter of scalene triangle of side k, 2k and 3k is
(a) k (b) 2k (c) 3k (d) None
7. The length of each side of an equilateral triangle having an area of $9\sqrt{3} \text{ cm}^2$ is
(a) 8 cm (b) 36 cm (c) 4 cm (d) 6 cm
8. If the area of an equilateral triangle is $16\sqrt{3} \text{ cm}^2$, then the perimeter of the triangle is
(a) 48 cm (b) 24 cm (c) 12 cm (d) 36 cm
9. An isosceles right triangle has an area 8 cm^2 . The length of its hypotenuse is
(a) $\sqrt{32} \text{ cm}$ (b) $\sqrt{16} \text{ cm}$ (c) $\sqrt{48} \text{ cm}$ (d) $\sqrt{24} \text{ cm}$
10. The edges of a triangular board are 6 cm, 8 cm and 10 cm. The cost of painting it at `0.09 per cm^2 is
a) `2.00                      b) `2.16 c) `2.48                      d) `3.00
11. Find the area of an equilateral triangle with side 10 cm.
12. If the angles of a triangle are in the ratio 2:3:4 find the angles of the triangle.
13. The area of a triangle is 48 cm^2 . If its base is 12 cm, find its altitude.
14. The hypotenuse of an isosceles right triangle is 10 cm. Find its area.
15. A rhombus has perimeter 120 m and one of its diagonal is 50 m. Find the area of the rhombus.

16. The area of an equilateral triangle is $2\sqrt{3} \text{ cm}^2$. Find its perimeter.
17. The area of an equilateral triangle is $81\sqrt{3} \text{ cm}^2$, find its height.
18. Find the area of a triangle whose sides are 13cm, 14cm and 15 cm respectively.
19. Find the area of an isosceles triangle whose equal sides measure 13 cm each and the base measures 24 cm.
20. Prove that the area of a quadrilateral ABCD is $4(\sqrt{3} + 2\sqrt{2}) \text{ m}^2$. AB = 6cm, BC = 6cm, CD = 4cm and AD = 4cm and diagonal AC = 4 cm.
21. The perimeter of a triangle is 54 cm and its sides are in the ratio 5:6:7. Find the area of the triangle.
22. The sides of a triangle are 35 cm, 54 cm and 61 cm respectively. Find the length of its longest altitude.
23. The edges of a triangular board are 6cm, 8cm and 10 cm. Find the cost of painting it at the rate of 25 paise per cm^2 .
24. Find the perimeter of an equilateral triangle whose area is equal to that of a triangle with sides 21cm, 16cm and 13cm.
25. OABC is a rhombus whose three vertices A, B and C lie on a circle with centre O. If the radius of the circle is 10 cm, find the area.
26. Find the area of a trapezium whose parallel sides are 77cm, 60cm and the other two sides are 25cm and 26cm.
27. The perimeter of a right angled is 144cm and its hypotenuse measures 65cm. Find the length of other sides and calculate its area. Verify the result using Heron's formula.
28. In fig. $\triangle ABC$ has sides $AB = 7.5\text{cm}$, $AC = 6.5 \text{ cm}$ and $BC = 7 \text{ cm}$. On base BC, a parallelogram DBCE is constructed. Find the height DF of the parallelogram.



29. Find the perimeter of an isosceles right triangle having an area equal to 200 cm^2 .
30. The area of an isosceles right triangle is 128 cm^2 . Find the length of its hypotenuse.