Area

1. The three sides of a triangle are 5cm, 12cm and 13cm A small triangle is formed by connecting the midpoint of the three sides of this triangle. What is the area of the small triangle?
(A) 15 **(B)** 30
(C) 7.5 **(D)** 32.5

2. What is the cost of leveling a triangular portion of land with sides 72m, 30m and 78m respectively at the rate of 20 paise per square meter?
(A) rs. 200 **(B)** rs. 210
(C) rs. 216 **(D)** rs. 220

3. The sides of the triangle are 16 meters, 12 meters and 20 meters respectively. Find the length of its longest side.
(A) 9.2 meter **(B)** 9.6 meter
(C) 9.4 meter **(D)** 9.8 meter

4. Find the area of a triangle whose sides are 7.8 cm, 5 cm and 11.2 cm
(A) 18cm^2 **(B)** 16.8cm^2
(C) 17.4cm^2 **(D)** 12 cm^2

5. The triangle MNP is identical to the triangle DEF. The area of triangle MNP is 1024 cm^2 and the area of triangle DEF is 144 cm^2. If the longest side of the triangle MNP is 64 cm, then what is the longest side of the triangle DEF?
(A) 32cm **(B)** 28cm
(C) 20cm **(D)** 24cm

6. The difference between the height and the base of a right triangle is 7cm and the area of that triangle is 30 sq cm Find the perimeter of the triangle.
(A) 13 cm **(B)** 12 cm
(C) 30 cm **(D)** 25 cm

7. The numerical value of the area of an equilateral triangle is twice the numerical value of its perimeter. What is the area of the above triangle?
(A) 48 cm^2 **(B)** $24\sqrt{3}cm^2$
(C) $48\sqrt{3}cm^2$ **(D)** $36\sqrt{3}cm^2$

8. From the three vertices of a larger triangle, three smaller triangles are marked such that each side of each smaller triangle is 2/5 of the side of its adjacent larger triangle. The ratio of the area of the remaining part of the larger triangle to the total area of the three smaller triangles is
(A) 12: 13 **(B)** 1: 5
(C) 12: 25 **(D)** 4: 25

9. The area of a rhombus is 216 cm^2 and the length of one of its diagonals is 24 cm. What is the length of each side of rhombus?
(A) 14 cm **(B)** 13 cm
(C) 15 cm **(D)** 12 cm

10. What is the area of a piece of metal, which is in the form of a parallelogram, which has a base of 20 m and a height of 5.4m?
(A) 108 sq.m. **(B)** 801 sq.m.
(C) 180 sq.m. **(D)** 810 sq.m.

11. The length of each side of a rhombus is 5 m and the length of one of its diagonals is 2.8m. Find the area of this rhombus?
(A) 6.72m^2 **(B)** 13.44 m^2
(C) 14 m^2 **(D)** 7 m^2

12. One side of a rhombus is 37 cm and its area is 840 cm^2. Find the sum of the lengths of its diagonals.
(A) 84 cm **(B)** 94 cm
(C) 42 cm **(D)** 47 cm

13. The perimeter of a rhombus is 56 cm and the length of one of its diagonal is 26 cm, find the length of the second diagonal of the rhombus.
(A) $6\sqrt{7}$ cm **(B)** $6\sqrt{2}$ cm
(C) $6\sqrt{3}$ cm **(D)** $6\sqrt{5}$ cm

14. The sides of the parallelogram are 12 m and 17 m respectively. If the length of one of the diagonal is 25 m, then the area of that parallelogram is:
(A) 190 m^2 **(B)** 150 m^2
(C) 160 m^2 **(D)** 180 m^2

15. The diagonals of a rhombus are 12 cm and 16 cm. Find the area of the shape formed by

joining the midpoints of all the sides of the rhombus.

(A) 192 cm^2 **(B)** 64 cm^2
(C) 48 cm^2 **(D)** 96 cm^2

16. The area of a rhombus is 216 m^2 and its diagonal has a length of 24m. The length of each side of the rhombus will be:

(A) 12 m **(B)** 18 m
(C) 15 m **(D)** 30 m

17. Find the distance between two parallel sides of a trapezium if the area of the trapezium is 150 square meters, and the lengths of the two parallel sides are 10 meters and 15 meters, respectively.

(A) 12 m **(B)** 14 m
(C) 10 m **(D)** 15 m

18. When the area of a rhombus is 324 cm^2 and the length of one of its diagonals is 36 cm. What is the length of each side of this rhombus?

(A) 10 cm **(B)** $18\sqrt{5}$ cm
(C) $9\sqrt{5}$ cm **(D)** $8\sqrt{6}$ cm

19. One side of the rhombus and one of the two diagonals have a length of 14 cm. Area of rhombus is - - - cm^2.

(A) $49\sqrt{3}$ **(B)** $196\sqrt{3}$
(C) $98\sqrt{3}$ **(D)** 98

20. The height of an equilateral triangle is equal to the diagonal of a square. Find the ratio of the area of the triangle and the square.

(A) $\sqrt{3}$: 2 **(B)** 2 : $\sqrt{3}$
(C) 3: 4 **(D)** $\sqrt{3}$: $\sqrt{2}$