Q.1 One side of a rectangular field is 15 m and one of its diagonals is 17 m. Find the area of the field.

Q.2 A lawn is in the form of a rectangle having its sides in the ratio 2 : 3. the area of the lawn is $\frac{1}{6}$ hectares. Find the length and breadth of the lawn.

Q.3 Find the cost of carpeting a room 13 m long and 9 m broad with a carpet 75 cm wide at the rate of Rs12.40 per square metre.

Q.4 If the diagonal of a rectangle is 17 cm long and its perimeter is 46 cm, find the area of the rectangle.

Q.5 The length of a rectangle is twice its breadth. If its length is decreased by 5 cm and breadth is increased by 5 cm, the area of the rectangle is increased by 75 sq. cm. Find the length of the rectangle.

Q.6 In measuring the sides of a rectangle, one side is taken 5% in excess, and the other 4% in deficit. Find the error percent in the area calculated from these measurements.

Q.7 A rectangular grassy plot 110 m by 65 m has a gravel path 2.5 m wide all round it on the inside. Find the cost of gravelling the path at 80 paise per sq. metre.

Q.8 The perimeters of two squares are 40 cm and 32 cm. Find the perimeter of a third square whose area is equal to the difference of the areas of the two squares.

Q.9 A room 5 m 55 cm long and 3m 74 cm broad is to be paved with square tiles. Find the least number of square tiles required to cover the floor.

Q.10 Find the area of a square, one of whose diagonals is 3.8 m long.

Q.11 The diagonals of two squares are in the ratio of 2 : 5. Find the ratio of their areas.

Q.12 If each side of a square is increased by 25%, find the percentage change in its area.

Q.13 If the length of a certain rectangle is decreased by 4 cm and the width is increased by 3 cm, a square with the same area as the original rectangle would result. Find the perimeter of the original rectangle.

Q.14 A room is half as long again as it is broad. The cost of carpeting the room at Rs 5 per sq. m is ⌡ 270 and the cost of papering the four walls at Rs 10 per m^2 is Rs 1720. If a door and 2 windows occupy 8 sq. m, find the dimensions of the room.

Q.15 Find the area of a triangle whose sides measure 13 cm, 14 cm and 15 cm.

Q.16 The length of a room is 5.5 m and width is 3.75 m. Find the cost of paving the floor by slabs at the rate of Rs 800 per sq. metre.

Q.17 The length of a rectangle is 18 cm and its breadth is 10 cm. When the length is increased to 25 cm, what will be the breadth of the rectangle if the area remains the same?

Q.18 A rectangular plot measuring 90 meters by 50 meters is to be enclosed by wire fencing. If the poles of the fence are kept 5 metres apart, how many poles will be needed?

Q.19 A length of a rectangular plot is 60% more than its breadth. If the difference between the length and the breadth of that rectangle is 24 cm, what is the area of that rectangle?

Q.20 A rectangular parking space is marked out by painting three of its sides. If the length of the unpainted side is 9 feet, and the sum of the lengths of the painted sides is 37 feet, then what is the area of the parking space in square feet?

Q.21 The difference between the length and breadth of a rectangle is 23m. If its perimeter is 206 m then find its area.

Q.22 The length of a rectangular plot is 20 metres more than its breadth. If the cost of fencing the plot @ Rs 26.50 per metre is Rs 5300, what is the length of the plot in meters?

Q.23 The breadth of a rectangular field is 60% of its length. If the perimeter of the field is 800 m., what is the area of the field?

Q.24 The ratio between the length and the perimeter of a rectangular plot is 1: 3. What is the ratio between the length and breadth of the plot?

Q.25 The ratio between the length and the breadth of a rectangular park is 3: 2. If a man cycling along the boundary of the park at the speed of 12 km/hr completes one round in 8 minutes, then find the area of the park (in sq.).

Q.26 The length of a rectangular hall is 5m more than its breadth. The area of the hall is 750 m^2. Find the length of the hall.

Q.27 The area of a rectangle is 460 square metres. If the length is 15% more than the breadth, what is the breadth of the rectangular field?

Q.28 A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq. feet. How many feet of fencing will be required?

Q.29 The ratio between the perimeter and the breadth of a rectangular is 5: 1. If the area of the rectangle is 216 sq. cm, what is the length of the rectangle?

Q.30 A Farmer wishes to start a 100 sq. m rectangular vegetable garden. Since he has only 30 m barbed wire, he fences three sides of the garden letting his house compound wall act as the fourth side fencing. Find the dimension of the garden.

MATHEMATICS

ANSWER

1. 120 m^2

2. 50 m.

3. 1934.4

4. 120 cm^2

5. 20 cm

6. 0.8%

7. 680

8. 24 cm

9. 176

10. 7.22 m^2

11. 4: 5

12. 56.25%

13. 50 cm

14. L = 9, B = 6, H = 6

15. 84 cm^2

16. ₹ 16,500

17. 7.2 cm

18. 56

19. 2560 sq. cm

20. 126

21. 2520 m^2

22. none of these

23. 37500sq. m

24. 2 : 1

25. 153600

26. 30 m

27. None of these

28. 88

29. 18 cm

30. 20 m × 5 m