



MATHS

BOOKS - RD SHARMA MATHS (ENGLISH)

MENSURATION



1. Find the perimeter of each of the following

figures:



3. Define perimeter of a closed figure.

4. Find the perimeter of each of the following

shapes: Figure

Watch Video Solution

5. Find the perimeter of a rectangle whose length and breadth are 25m and 15m respectively.

6. Find the breadth of the rectangle whose perimeter is 360cm and whose length is 100cm.



7. Find the perimeter of a square whose side is

5cm.

8. Find the side of a square whose perimeter is

100cm.

Watch Video Solution

9. Pinky runs around a square field of side 75m, Bobby runs around a rectangular field with length 160m and breadth 105m. Who covers more distance by how much?

A. Bobby; 530m

B. Pinky; 300m

C. Bobby; 230m

D. Pinky; 230m

Answer: C



10. Find the cost of fencing a rectangular park

of length 300m and breadth 200m at the rate

of Rs. 24 per meter.

A. Rs. 15000

B. Rs. 24000

C. Rs. 1000

D. Rs. 20000

Answer: B

Watch Video Solution

11. Find the cost of fencing a square park of

side 300m at the rate of Rs. 20 per metre.

12. Kamla and Shakeela go for jogging every morning. Kamla goes around a square field of side 200m. Shakeela goes around a rectangular field of length 300m and breadth 110m. If they both take 3 rounds, who covers the greater distance and how much more?



13. Two boxes have to fit in a square arena of side 30m. Four poles are stuck into the

ground at the four corners of the arena. A rope fence is to be put around the poles to keep the spectators away. What length of rope will be required if 2m are required for tying the knots?

A. 122m

 $\mathsf{B.}\,120m$

 $\mathsf{C}.\,132m$

D. 118m

Answer: A





14. How many rectangles can be drawn with 36cm as the perimeter, given that the sides are positive integers in cm?

Watch Video Solution

15. The length of a rectangular field is twice its breadth. A man jogged around it 5 times and covered a distance of 3km. What is the length of the field?



16. Find the perimeter of each of the following shapes: a) An equilateral triangle of side 9cm. b) An isosceles triangle with equal side 8cm each and third side 6cm. c) An isosceles triangle ABC, with AB = AC = 10cm and altitude from A on BC equal to 8cm. d) A regular hexagon with each side measuring 8cm.

17. Find the perimeters of the rectangles whose lengths and breadths are given below:
7cm, 5cm (ii) 5cm, 4cm (iii) 7.5cm,
4.5cm

Watch Video Solution

18. Find the perimeters of the squares whose sides are given below: 10cm (ii) 5cm (iii) 115.5cm



19. Find the side of the square whose perimeter is: 16m (ii) 40cm (iii) 22cm

Watch Video Solution

20. Find the breadth of the rectangle whose perimeter is 360cm and whose length is (i) 116cm (ii) 140cm (iii) 102cm

21. A rectangular piece of lawn is 55m wide and

98m long. Find the length of the fence around

it.

Watch Video Solution

22. The side of a square field is 65m. What is

the length of the fence required all around it?

23. Two sides of a triangle are 15cm and 20cm.

The perimeter of the triangle is 50cm. What is

the third side?



24. A wire of length 20m is to be folded in the form of a rectangle. How many rectangles can be formed by folding the wire if the sides are positive integers in metres?

25. A square piece of land has each side equal to 100m. If 3 layers of metal wire has to be used to fence it, what is the length of the wire needed?

A. 800m

 $B.\,1200m$

 $\mathsf{C.}\,2000m$

 $\mathsf{D}.\,1600m$

Answer: B





26. Shikha runs around a square of side 75m. Priya runs around a rectangle with length 60m and breadth 45m. Who covers the smaller distance?

Watch Video Solution

27. The dimensions of a photographs are $30cm \times 20cm$. What length of wooden frame is needed to frame the picture?



29. To fix fence wires in a garden, 70m long and 50m wide, Arvind bought metal pipes for bosts. He fixed a post every 5 metres apart.

Each post was 2m long. What is total length of

the pipes he bought for the posts?



30. Find the cost of fencing a rectangular park

of length 175m and breadth 125m at the rate

of Rs. 12 per meter.



31. The perimeter of a regular pentagon is

100cm. How long is each side?

Watch Video Solution

32. Find the perimeter of a regular hexagon with each side measuring 8 m.

33. A rectangular piece of land measure 0.7km by 0.5km. Each side is to be fenced with four rows of wires. What length of the wire is needed?

Watch Video Solution

34. Avneet buys 9 square paving slabs, each with a side of $\frac{1}{2}$

35. Find the perimeter of each of the following

shapes:



36. Find the areas of the following figures by

counting square.



37. Calculate the area of the figure if each

square is $1cm^2$



38. On a squared paper, draw (i) a rectangle, (ii) a triangle (iii) any irregular closed figure. Find the approximate area of each by counting the number of squares complete, more than half and exactly half.

O Watch Video Solution

39. Draw any circle on the graph paper. Count the squares and use them to estimate the area of the circular region.





40. Find the areas of the following figures by

counting square:

Watch Video Solution

41. Find the area of a rectangle, whose Length

= 4cm, breadth = 2cm. Length = 6.4cm, breadth

= 5cm.

42. Find the area of a rectangle if its length and breadth are 28cm and 120mm, respectively.

Watch Video Solution

43. Find the area of a square whose side is

5cm.

44. Find the area of a square whose side is

63mm.

Watch Video Solution

45. The area of a rectangle is $240 \ cm^2$. If its

length is 20cm, find its breadth.

46. Find the perimeter of a rectangle whose area is $650 \ cm^2$ and its breadth is 13cm.

Watch Video Solution

47. What will happen to the area of a rectangle if (i)its length is doubled and breadth is tripled. (ii)its length and breadth are doubled?



48. What will happen to the area of a square if

its side is:

(i) doubled

(ii) halved?

Watch Video Solution

49. A marble tile measures 25cm by 20cm. How

many tiles will be required to cover a wall of

size 4m by 3m?

50. One side of a square plot is 300m. Find its area. Also, find the cost of levelling it, if the rate for levelling is Rs. 0.50 per square metre.



Watch Video Solution

51. The floor of a rectangular hall is to be covered with a carpet 150cm wide. If the length and breadth of the hall are 20m and 18m, respectively, find the cost of the carpet at the rate of Rs. 10 per metre.



52. The total cost of flooring a room at Rs. 8.50

per square metre is Rs. 510. If the length of the

room is 8 metres, find its breadth.



53. Find the perimeter of a rectangular field whose length is four times its width and which

has an area equal to $30976~cm^2$.



54. Ravish wants to cover his room which is 3 m wide and 4 m long by squared tiles. If each square tiles is of side 0.5 m, then find the number of tiles required to cover the floor of his room.

Watch Video Solution

55. Find the area of a rectangle, whose Length

= 6cm, breadth = 3cm Length = 8cm, breadth =

3cm Length = 4.5 cm, breadth = 2cm.



57. The area of a rectangle is $49cm^2$ and its breadth is 2.8cm. Find the length of the



59. The area of a rectangle is $225cm^2$ and its

one side is 25cm, find its other side.



60. What will happen to the area of a rectangle if its (i)Length and breadth are tripled. (ii)Length is doubled and breadth is same. (iii)Length is doubled and breadth is halved.

Watch Video Solution

61. What will happen to the area of a square if its side is: (i)Tripled (ii) increased by half



area is $500cm^2$ and breadth is 20cm.

Watch Video Solution

63. A rectangle has the area equal to that of a square of side 80cm. If the breadth of the rectangle is 20cm, find its length.



65. A marble tile measures $15cm \times 20cm$. How many tiles will be required to cover a wall of size $4m \times 6m$?

66. A marble tile measures $10 \ cm \ imes \ 12 \ cm$. How many tiles will be required to cover a wall of size $3 \ m \ imes \ 4 \ m$? Also, find the total cost of the tiles at the rate of Rs 2 per tile.

Watch Video Solution

67. One side of a square plot is 250m, find the cost of levelling it at the rate of Rs. 2 per square metre.

68. Split the following shapes into squares and find their areas. (The measures are given in centimetres)

Watch Video Solution

69. Split the following shapes into rectangles and find the area of each (The measures are given in centimetres) (i)Figure (ii) Figure (iii) Figure



70. How many tiles whose length and breadth are 12 cm and 5 cm respectively will be needed to fit in a rectangular region whose length and breadth are respectively:
(a) 100 cm and 144 cm

(b) 70 cm and 36 cm.



71. The sides of a rectangle are in the ratio 5:4.

If its perimeter is 72cm, then its length is (a)40cm (b)20cm (c)30cm (d) 60cm



72. The cost of fencing a rectangular field 34m long and 18m wide at Rs. 2.25 per metre is Rs.

243 (b) Rs. 234 (c) Rs. 240 (d) Rs. 334



73. The cost of putting a fence around a square field at Rs. 2.50 per metre is Rs. 200.
The length of each side of the field is:
80m (b) 40m (c) 20m (d) None of these

Watch Video Solution

74. The length of a rectangle is three times of its width. If the length of the diagonal is $8\sqrt{10}m$, then the perimeter of the rectangle

is: (a) $15\sqrt{10}\,m$ (b) $16\sqrt{10}\,m$ (c) $24\sqrt{10}\,m$ (d)

64m



75. If a diagonal of a rectangle is thrice its smaller side, then its length and breadth are in the ratio

(a)3:1

(b) $\sqrt{3}:1$

(c) $\sqrt{2}:1$

(d) $2\sqrt{2}:1$





76. The ratio of the areas of two squares, one having its diagonal double than the other, is(a) 1:2(b) 2:3

(c) 3:1

(d) 4:1



77. If the ratio of areas of two squares is
225:256, then the ratio of their perimeters is
(a) 225:256 (b) 256:225 (c) 15:16 (d)
16:15

Watch Video Solution

78. If the side of a square are halved, then its

area

(a) remains same

(b) becomes half





79. A rectangular carpet has area $120m^2$ and perimeter 46 metres. The length of its diagonals is 15m (b) 16m (c) 17m (d) 20m

80. If the ratio between the length and the perimeter of a rectangular plot is 1:3, then the ratio between the length and breadth of the plot is
(a) 1:2
(b) 2:1
(c) 3:2

(d) 2:3

81. If the length of the diagonal of a square is

20cm, then its perimeter is

(a) $10\sqrt{2}\ cm$

(b) 40cm

(c) $40\sqrt{2}~cm$

(d) 200cm

Watch Video Solution

82. If the perimeter of a square is 40cm, then the length of its each side is 20cm (b)



84. The length of the diagonal of a square is 20cm. Its area is $(a)400cm^2$ (b) $200cm^2$ $(c)300cm^2$ (d) $100\sqrt{2} cm^2$



85. The length and breadth of a rectangle of area A are doubled. The area of the new rectangle is

(a) 2A

(b) A^2

(c) 4*A*

(d) None of these



86. The perimeter of the square is 64m. then

the side of the square is:

Watch Video Solution

87. The perimeter of a square whose area is $225 m^2$ is: (a) 15m (b) 60m (c) 225m (d) 30m



88. The area of a rectangle is $650cm^2$ and its breadth is 13cm. The perimeter of the rectangle is 63cm (b) 130cm (c) 100cm (d) 126cm

Watch Video Solution

89. How many envelops can be made out of a sheet of paper 72cm by 48cm, if each envelope

requires a paper of size 18cm by 12cm? (a)

4 (b) 8 (c) 12 (d) 16





91. Find the perimeter of each of the following shapes:

(a) A triangle of sides 3 cm, 4 cm, and 5 cm.

(b) An equilateral triangle of side 9 cm.

(c) An isosceles triangle with equal sides 8 cm

each and third side 6 cm.

Watch Video Solution

92. The area of a rectangular ground is $120m^2$ and its length is 12m. Find the cost of fencing



required? Find the cost of these tiles at Rs. 25

per tile.



95. The length and breadth of a rectangular park are in the ratio 5:3 and its perimeter is 128m. Find the area of the park.



96. The total cost of flooring a room at Rs.85per m^2 is Rs.5100. If the length of the room is 8 meters, find its breadth.

A. 8.5m

 $\mathsf{B.}\,7.0m$

 $\mathsf{C.}\,7.5m$

D.9.5m

Answer: C



97. A square sheet of side 5cm is cut out from a rectangular piece of an aluminium sheet of length 9cm and breadth 6cm. What is the area of the aluminium sheet left over?

Watch Video Solution

98. Find the perimeter of each of the following

shapes:

99. A square sheet of 2cm is cut from each corner of a rectangular piece of aluminium sheet of length 12cm and breadth 8cm. Find the area of the left over aluminium sheet.



100. A room is 12.5 m long and 8m wide. A square carpet of side 8m is laid on its floor. Find the area of the floor which is not carpeted. **101.** The area of a square field is $36 m^2$. A path of uniform width is laid around and outside of it. If the area of the path is $28 m^2$, then find the width of the path.

O Watch Video Solution

102. The perimeter of a square 16cm, then its

area is cm^2 .

103. The length and breadth of a rectangle are

12cm and 5cm respectively, then its diagonal is

..... cm.

Watch Video Solution

104. The perimeter of a square whose area is

 $225\ m^2$ is.....

105. The area of a rectangle is $120cm^2$. If the

breadth is 6cm, then its length is......



106. If the ratio between the length and perimeter of a rectangular plot is 1:3, then the ratio between the length and breadth of the plot is....