



MATHS

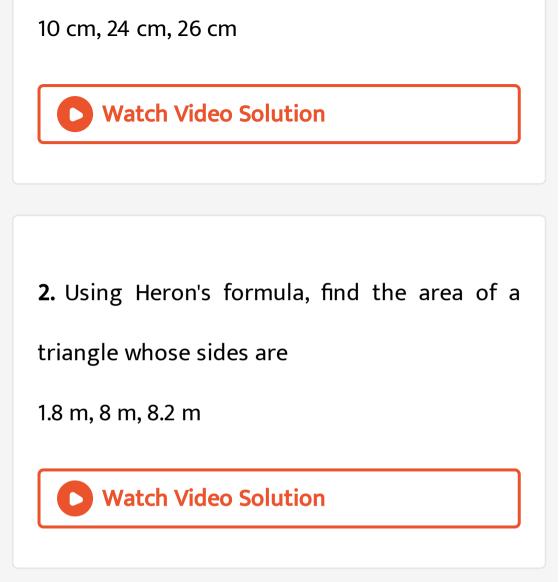
BOOKS - SURA MATHS (TAMIL ENGLISH)

MENSURATION



1. Using Heron's formula, find the area of a

triangle whose sides are



3. The sides of the triangular ground are 22 m,120 m and 122 m. Find the area and cost of

leveling the ground at the rate of ₹ 20 per m^2 .



4. The perimeter of a triangular plot is 600 m. If the sides are in the ratio 5 : 12 : 13, then find the area of the plot.

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5. Find the area of an equilateral triangle whose perimeter is 180 cm.



6. An advertisement board is in the form of an isosceles triangle with perimeter 36 m and each of the equal sides are 13 m. Find the cost painting it at ₹ 17.50 per square metre.



7. Find the area of a quadrilateral ABCD whose

sides are AB = 13cm, BC = 12cm, CD = 9cm, AD =

14cm and diagonal BD = 15cm.



8. A park is in the shape of a quadrilateral. The sides of the park are 15m, 20m, 26m, and 17m and the angle between the first two sides is a right angle. Find the area of the park.



9. A land is in the shape of rhombus. The perimeter of the land is 160 m and one of the diagonal is 48 m. Find the area of the land.



10. The adjacent sides of a parallelogram measures 34 m, 20 m and the measure of the diagonal is 42 m. Find the area of Parallelogram.

1. Find the total surface area and the lateral surface area of a cuboid whose dimensions are
(i) length = 20 cm, breadth = 15 cm, height = 8 cm

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2. The dimensions of a cuboidal box are 6m imes 400 cm imes 1.5m. Find the cost of

painting its entire outer surface at the rate of

₹ 22 per m^2 .



3. The dimensions of a hall $10m \times 9m \times 8m$.

Find the cost of white washing the walls and ceilling at the rate of ₹ 8.50 per m^2 .

4. Find the TSA and LSA of the cube whose side

is (i) 8 m (ii) 21 cm (iii) 7.5 cm

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5. If the total surface area of a cube is $2400cm^2$ then, find its lateral surface area.



6. A cubical container of side 6.5 m is to be painted on the entire outer surface. Find the area to be painted and the total cost of painting it at the rate of ₹ 24 per m^2 .

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7. Three identical cubes of side 4 cm are joined end to end. Find the total surface area and lateral surface area of the new resulting cuboid.





Exercise 7 3

1. Find the volume of a cuboid whose dimensions are

length = 12 cm, breadth = 8 cm, height = 6 cm

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Find the volume of a cuboid whose dimensions are

length = 60 m, breadth = 25 m, height = 1.5 m

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3. The dimensions of a match box are $6cm \times 3.5cm \times 2.5cm$. Find the volume of a packet containing 12 such match boxes.

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4. The length, breadth and height of a chocolate box are in the ratio 5:4:3. If its

volume is $7500cm^3$, then find its dimensions.



5. The length, breadth and depth of a pond are 20.5 m, 16 m and 8 m respectively. Find the capacity of the pond in litres.

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6. The dimensions of a brick are 24cm imes 12cm imes 8cm. How many such bricks

will be required to build a wall of 20 m length,

48 cm breadth and 6 m height?



7. The volume of container is $1440m^3$. The length and breadth of the container are 15 m and 8 m respectively. Find its height.



8. Find the volume of a cube each of whose

side is (i) 5 cm (ii) 3.5 m (iii) 21 cm

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9. A cubical milk tank holds 125000 litres of milk. Find the length of its side in metres.

10. A metallic cube with side 15 cm is melted and formed into a cuboid. If the length and height of the cuboid is 25 cm and 9 cm respectively then find the breadth of the cuboid.

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Exercise 7 4

1. The semi-perimeter of a triangle having sides 15 cm, 20 cm and 25 cm is

A. 60 cm

B. 45 cm

C. 30 cm

D. 15 cm

Answer:

2. If the sides of a triangle are 3 cm, 4 cm and 5

cm, then the area is

A. $3cm^2$

 $\mathsf{B.}\,6cm^2$

 ${\rm C.}\,9cm^2$

D. $12cm^2$

Answer:



3. The perimeter of an equilateral triangle is

30 cm. The area is

A. $10\sqrt{3}cm^2$

- B. $12\sqrt{3}cm^2$
- C. $15\sqrt{3}cm^2$
- D. $25\sqrt{3}cm^2$

Answer:

4. The lateral surface area of a cube of side 12

cm is

- A. $144 cm^2$
- $\mathsf{B.}\,196cm^2$
- $\mathsf{C.}\,576cm^2$
- $\mathsf{D.}\,664 cm^2$

Answer:



5. If the lateral surface area of a cube is $600cm^2$, then the total surface area is

A. $150cm^2$

 $\mathsf{B.}\,400 cm^2$

 $\mathsf{C}.\,900 cm^2$

 $\mathsf{D}.\,1350 cm^2$

Answer:

6. The total surface area of a cuboid with

dimension 10cm imes 6cm imes 5cm is

A. $280cm^2$

 $\mathsf{B.}\,300cm^2$

 $\mathsf{C.}\,360 cm^2$

 $\mathsf{D.}\,600 cm^2$

Answer:

7. If the ratio of the sides of two cubes are 2 :

3, then ratio of their surface areas will be

A. 4:6

B.4:9

C.6:9

D. 16:36

Answer:

8. The volume of a cuboid is $660cm^3$ and the

base is $33cm^2$. Its height is

A. 10 cm

B. 12 cm

C. 20 cm

D. 22 cm

Answer:

9. The capacity of a water tank of dimensions

10m imes 5m imes 1.5m is

A. 75 litres

B. 750 litres

C. 7500 litres

D. 75000 litres

Answer:

10. The number of bricks each measuring $50cm \times 30cm \times 20cm$ that will be required to build a wall whose dimensions are $5m \times 3m \times 2m$ is

A. 1000

- B. 2000
- C. 3000
- D. 5000

Answer:



Additional Questions And Answers Exercise 71

1. Using Heron's formula, find the area of a

triangle whose sides are 41 m, 15 m, 25 m.

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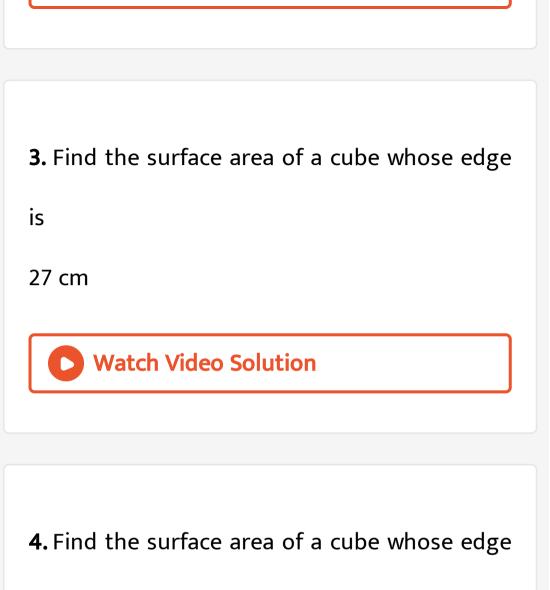
2. Find the area of am equilateral triangle

whose perimeter is 150 m.

1. Find the TSA and LSA of a cuboid whose length, breadth and height are 10 cm, 12 cm and 14 cm respectively.

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2. A cuboid has total surface area of $40m^2$ and its lateral surface area is $26m^2$. Find the area of its base.



is

3 cm

5. Find the surface area of a cube whose edge

is

6 cm

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6. Find the surface area of a cube whose edge

is

2.1 cm

Additional Questions And Answers Exercise 7 3

1. Find the volume of a cube whose surface are

a is a $96cm^2$.

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2. The volume of a cuboid is $440cm^3$ and the area of its base is $88cm^2$, find its height.

3. How many 3 metre cubes can be cut from a

cuboid measuring 18m imes 12m imes 9m?

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4. The outer dimensions of a closed wooden box are 10cm by 8cm by 7cm. Thickness of the wood is 1cm. Find the total cost of wood required to make box if $1 cm^3$ of wood costs $Rs \ 2.\ 00$



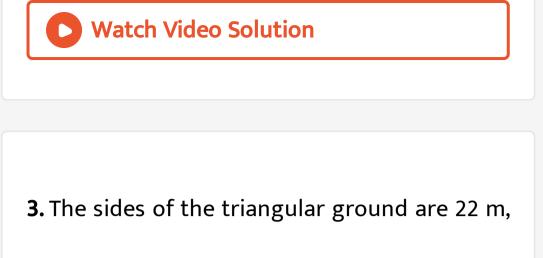
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2. Using Heron's formula, find the area of a

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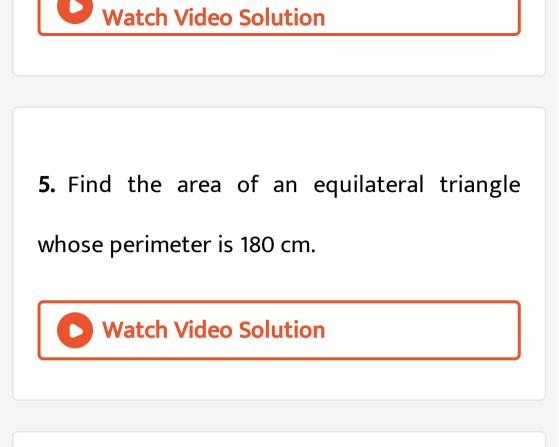


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