

Board- CBSE	Std- 6	Topic- Mensuration	Solved Questions
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Question 1

Find the perimeter of a rectangle of side 11, 10 cm

Solution:

$$\text{Perimeter of a rectangle} = 2 \times (\text{length} + \text{breadth})$$

$$= 2 \times (11 + 10)$$

$$= 42 \text{ cm}$$

Question 2

The two sides of a triangle are 12 cm and 14 cm. The perimeter of the triangle is 36 cm.

What is its third side?

Solution:

$$\text{Third side} = \text{Perimeter} - \text{sum of the other two sides}$$

$$= 36 - (12 + 14)$$

$$= 36 - 26$$

$$= 10 \text{ cm}$$

Question 3

Find the perimeter of a rectangle whose length and breadth are 150 cm and 1 m respectively.

Solution:

$$\text{Perimeter of a rectangle} = 2 \times (\text{length} + \text{breadth})$$

$$= 2 \times (150 + 100)$$

$$= 500 \text{ cm or } 5 \text{ m}$$

Question 4

Sachin takes 10 rounds of a rectangular park, 50 m long and 20 m wide. Find the total distance covered by him.

Solution:

$$\text{Distance covered by Sachin in 10 round} = 10 \times \text{Perimeter of rectangular park}$$

$$\text{Now perimeter of park} = 2 (\text{Length} + \text{Breadth})$$

$$= 2(50 + 20)$$

$$= 140\text{m}$$

Therefore, distance covered by Sachin in 10 rounds = $10 \times 140 = 1400\text{m}$

Question 5

Find the distance traveled by Naina if she takes three rounds of a square park of side 60 m.

Solution:

Distance traveled in three rounds of a square park = $3 \times \text{Perimeter of square park}$

Now perimeter of square park = $4 \times 60 = 240\text{m}$

Therefore, distance traveled in three rounds of a square park = $3 \times 240 = 720\text{ m}$

Question 6

Find the perimeter of a regular pentagon with each side measuring 6 cm.

Solution: Pentagon has five equal sides

So, perimeter = $5 \times \text{length of the side} = 5 \times 6 = 30\text{cm}$

Question 7

The lid of a rectangular box of sides 40 cm by 10 m is to be sealed all around with tape.

What is the length of the tape required?

Solution: length of the tape required = perimeter of rectangular lid

perimeter of rectangular lid = $2 (\text{Length} + \text{Breadth})$

$$= 2 (40 + 1000)$$

$$= 2800\text{ cm or }28\text{ m}$$

So, length of the tape required = 2800 cm

Question 8

Find the area of the rectangles whose sides are 7 cm and 4 cm

Solution: Area of rectangle is given by = $\text{Length} \times \text{Breadth}$

$$= 7 \times 4$$

$$= 28\text{ sq. cm}$$

Question 9

Find the areas of the square whose sides are 11 cm

Solution:

Area of square is given by =side \times side

$$= 11 \times 11$$

$$= 121 \text{ sq cm.}$$

Question 10

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

Solution: Area of the floor = Length \times width = 12 sq m

Area of single tile = $0.5 \times 0.5 = 0.25$ sq m

Number of times required = Area of the floor / Area of single tile

$$= 12 / 0.25 = 48$$

Question 11

Find the area in square meters of a piece of cloth 1m 25 cm wide and 2 m long.

Solution: Here we need to convert both the length and width into the same unit

So, length = 2 m

Width = 1m 25 cm = 1.25 m

Area of a piece of cloth = $2 * 1.25$

$$= 2.5 \text{ sq m.}$$

Question 12

A room is 4 m long and 3 m 50 cm wide. How many square meters of carpet is needed to cover the floor of the room.

Solution:

Here we need to convert both the length and width into the same unit

Length = 4 m

Width = 3 m 50 cm = 3.5 m

Area of carpet = Length \times Breadth = $4 \times 3.5 = 14$ sq m

Question 13

The area of a rectangular garden 50 m long is 300 sq m. Find the width of the garden.

Solution: Area of rectangular garden = 300 sq m

length of garden = 50 m

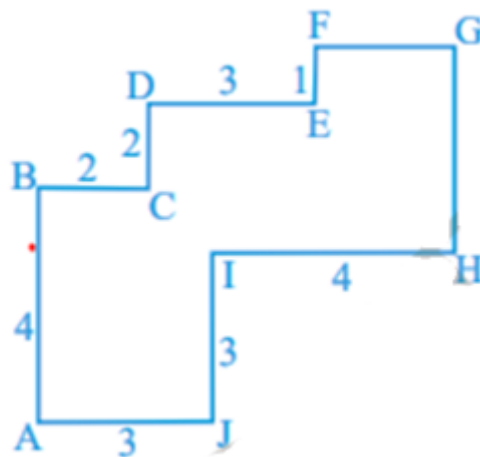
Area of garden = Length \times width

$300 = 50 \times \text{width}$

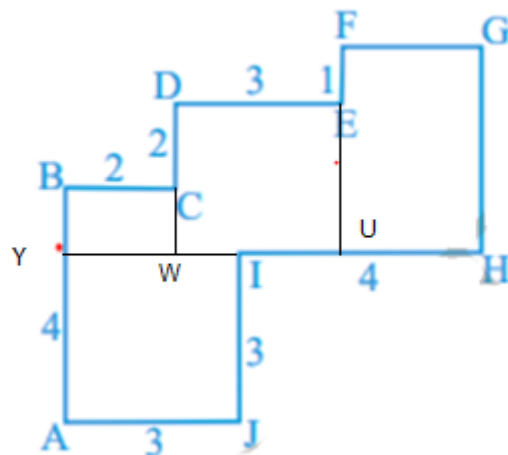
Therefore, width of garden = 6 m

Question 14

By splitting the figure into rectangles, find its area



Solution:



Area of the figure = Area AJIY + Area YWCB + Area DWUE + Area FUHG.

$$\text{Area AJIY} = \text{AJ} * \text{JI} = 3 * 3 = 9$$

$$\text{Now, } \text{BY} = \text{AB} - \text{YA} = 4 - 3 = 1$$

$$\text{So, Area YWCB} = \text{BY} * \text{BC} = 1 * 2 = 2$$

$$\text{Next, } \text{DW} = \text{DC} + \text{CW} = 2 + 1 = 3$$

$$\text{Therefore, area DWUE} = \text{DW} * \text{DE} = 3 * 3 = 9$$

$$\text{Similarly, } \text{UH} = \text{IH} - \text{IU} = 4 - 2 = 2$$

$$\text{GH} = \text{FU} \text{ and } \text{FU} = \text{EU} + \text{FE}$$

$$= \text{DW} + \text{FE} = 3 + 1 = 4$$

$$\text{Area FUHG} = \text{UH} * \text{GH} = 2 * 4 = 8$$

$$\text{Therefore, the area of the figure} = 9 + 2 + 9 + 8$$

$$= 28 \text{ sq units}$$