MATHS

NCERT - NCERT MATHEMATICS(ENGLISH)

MENSURATION

Exercise 10 3

1. What is the cost of tiling a rectangular plot of land 500 m long and 200 m wide at the rate

of Rs 8 per hundred sq m.?

2. The area of a rectangular garden 50 m long is 300 sq m. Find the width of the garden
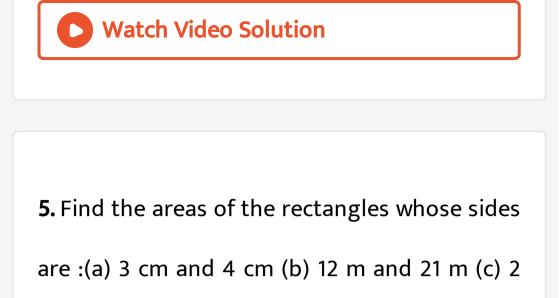
A. $6m$

B. $8m$

C. $16m$

D. $9m$

Answer: A

3. A room is 4 m long and 3 m 50 cm wide. How many square metres of carpet is needed to cover the floor of the room?
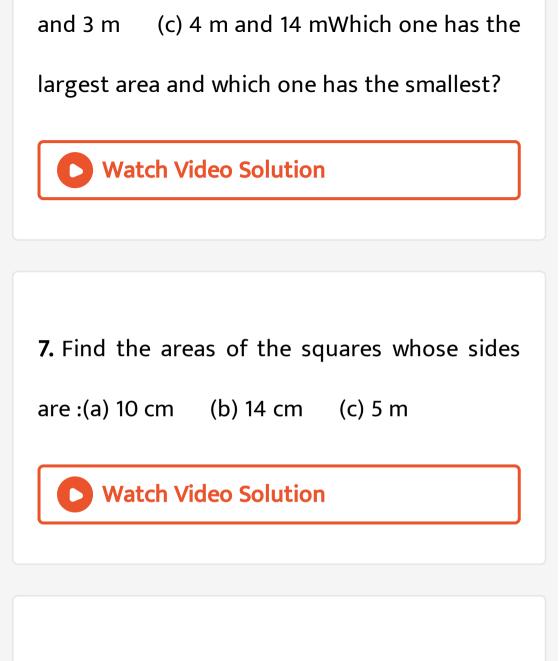
4. A table-top measures 2 m by 1 m 50 cm. What is its area in square metres?

5. Find the areas of the rectangles whose sides are :(a) 3 cm and 4 cm (b) 12 m and 21 m (c) 2 km and 3 km (d) 2 m and 70 cm

6. The length and breadth of three rectangles are as given below :(a) 9 m and 6 m (b) 17 m

and 3 m   (c) 4 m and 14 mWhich one has the

largest area and which one has the smallest?

7. Find the areas of the squares whose sides

are :(a) 10 cm   (b) 14 cm   (c) 5 m

8. Five square flower beds each of sides 1 m are

dug on a piece of land 5 m long and 4 m wide.

What is the area of the remaining part of the land?

9. A floor is 5 m long and 4 m wide. A square carpet of sides 3 m is laid on the floor. Find the area of the floor that is not carpeted.

10. 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.

▶ **Watch Video Solution**

11. By splitting the following figures into rectangles, find their areas(The measures are given in centimetres).
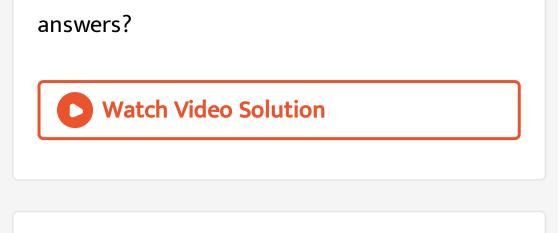
12. Split the following shapes into rectangles and find their areas. (The measures are given in centimetres)

Exercise 10 1

1. What is the perimeter of each of the following figures? What do you infer from the

answers?

2. Two sides of a triangle are 12 cm and 14 cm. The perimeter of the triangle is 36 cm. What is its third side?

3. Avneet buys 9 square paving slabs, each with a side of $\dfrac{1}{2}$ m. He lays them in the form of a

square. (a) What is the perimeter of his arrangement [Fig 10.7(i)]? (b) Shari does not like his arrangement. She gets him to lay them out like a cross. What is the perimeter of her arrangement [(Fig 10.7 (ii)]? (c) Which has greater perimeter? (d) Avneet wonders if there is a way of getting an even greater perimeter. Can you find a way of doing this? (The paving slabs must meet along complete edges i.e they cannot be broken.)

4. A table-top measures 2 m 25 cm by 1 m 50 cm. What is the perimeter of the table-top?

5. 2. The lid of a rectangular box of sides 40 cm by 10 cm is sealed all round with tape. What is the length of the tape required?

6. Find the perimeter of each of the following figures :

▶ **Watch Video Solution**

7. Find the perimeter of a triangle with sides measuring 10 cm, 14 cm and 15 cm.

▶ **Watch Video Solution**

8. Find the side of the square whose perimeter is 20 m.

▶ **Watch Video Solution**

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

▶ **Watch Video Solution**

10. 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**

11. A piece of string is 30 cm long. What will be the length of each side if the string is used to

form :(a) a square? (b) an equilateral triangle? (c) a regular hexagon?

12. A rectangular piece of land measures 0.7 km by 0.5 km. Each side is to befenced with 4 rows of wires. What is the length of the wire needed?

13. What is the length of the wooden strip required to frame a photograph of length and breadth 32 cm and 21 cm respectively?

14. 8. Find the perimeter of the regular hexagon with each side measuring $8m$ (9).Find the side of a square whose perimeter is 20m`(10).The perimeter of a regular pentagon is 100 cm. How long is its each side?

15. Sweety runs around a square park of side 75 m. Bulbul runs around a rectangular park with length 60 m and breadth 45 m. Who covers less distance?

16. Find the cost of fencing a rectangular park of length 175 m and breadth 125 m at the rate of Rs 12 per metre.Sweety runs around a

square park of side 75m . bulbul runs around a rectangular park of length 60m and breadth 45m . who covers less distance ?

Solved Examples

1. The area of a rectangular piece of cardboard is 36 sq cm and its length is 9 cm. What is the width of the cardboard?
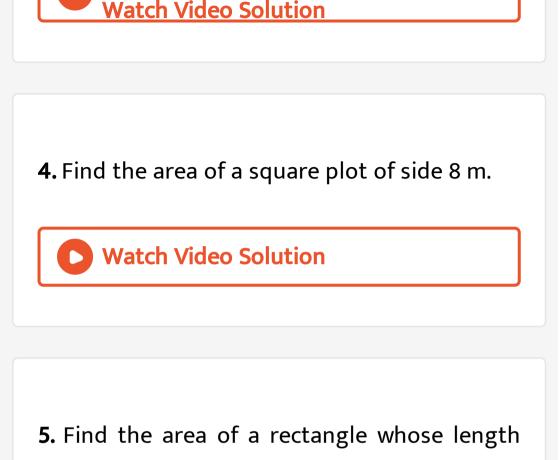
2. Find the area in square metre of a piece of cloth 1m 25 cm wideand 2 m long.

3. Bob wants to cover the floor of a room 3 m wide and 4 m longby 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.

4. Find the area of a square plot of side 8 m.

5. Find the area of a rectangle whose length and breadth are12 cm and 4 cm respectively

6. By counting squares, estimate the area of the figure 10.9 a.

7. By counting squares, estimate the area of the figure 10.9 b.

8. Find the area of the shape shown in the figure 10.10.

9. A farmer has a rectangular field of length and breadth 240 m and 180 m respectively. He wants to fence it with 3 rounds of rope as shown in figure 10.4. What is the total length of rope he must use?

10. Find the cost of fencing a rectangular park of length 250 m andbreadth 175 m at the rate of Rs 12 per metre.

▶ Watch Video Solution

11. Find the distance travelled by Shaina if she takes three rounds ofa square park of side 70 m.

▶ Watch Video Solution

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

13. Shabana wants to put a lace border all around a rectangular tablecover (Fig 10.3), 3 m long and 2 m wide. Find the length of the lace required by Shabana.

14. An athlete takes 10 rounds of a rectangular park, 50 m long and25 m wide. Find the total distance covered by him.

15. Find the perimeter of a rectangle whose length and breadth are150 cm and 1 m respectively

16. Find the perimeter of a regular pentagon with each side measuring 3 cm.

▶ **Watch Video Solution**

17. The perimeter of a regular hexagon is 18 cm. How long is its oneside?

▶ **Watch Video Solution**

1. 1. Find the areas of the following figures by counting square:

▶ **Watch Video Solution**