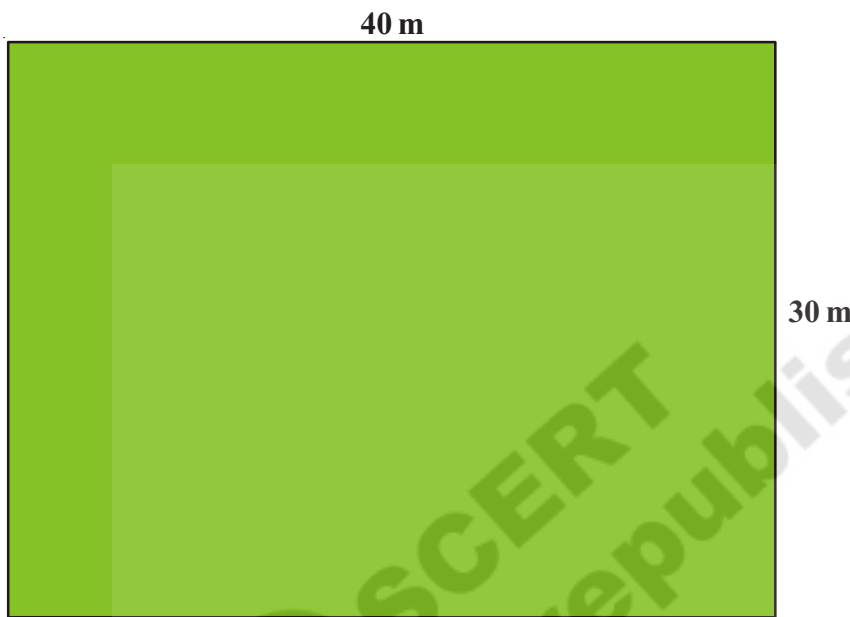


5

Spaces and boundaries-1

Sakru wants to fence around his land.



I will buy wire equal to the total length of my boundary

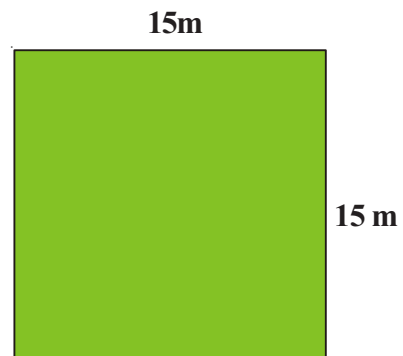


How much wire does Sakru need to fence his land?

Perimeter refers to the total length of the boundary.

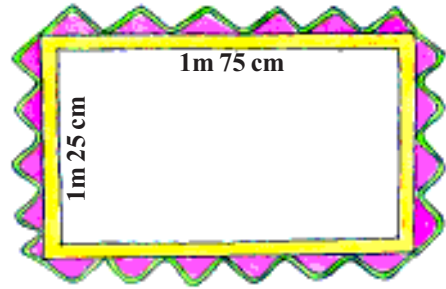
Do This

1. What is the perimeter of Ramaiah's field? He walks along the boundary of his field to check the water level in the field, 3 times a day. What is the total distance he walks on doing so?

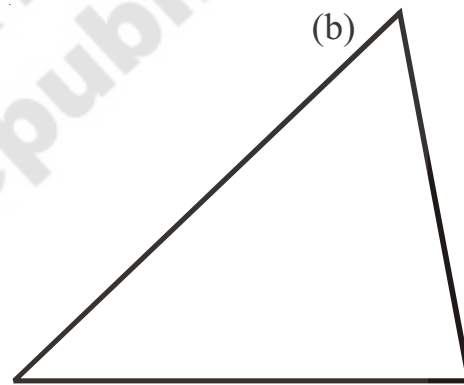


2. Rani wants to put a lace around the table cloth and 6 table mats.

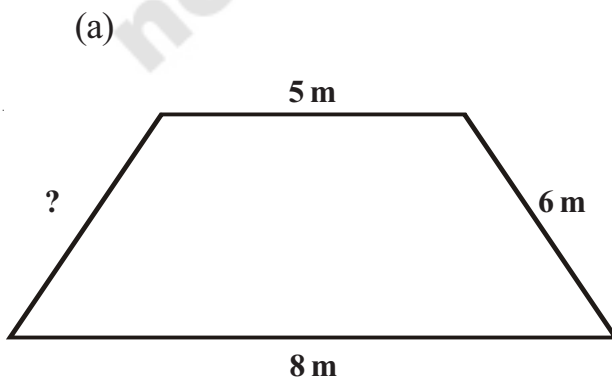
- (a) How much lace does she need to buy for the table cloth?
- (b) How much lace will she need to buy for 6 table mats?
- (c) What is the total length of lace that Rani needs to buy?



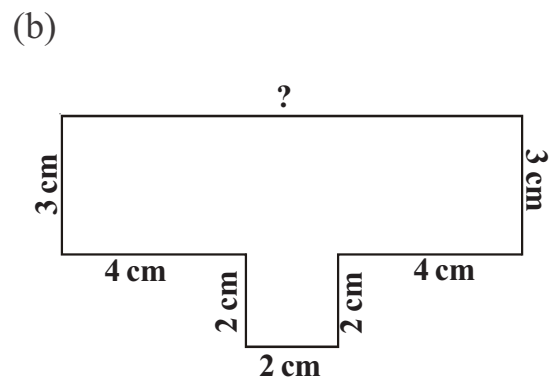
3. Measure and find the perimeter of the shapes given below.



4. The perimeter along with the shapes are given below. Find the missing length of one side.



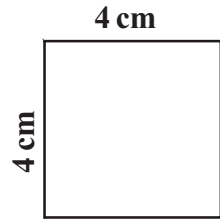
Perimeter = 24 cm



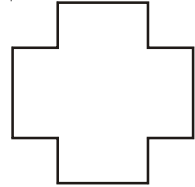
Perimeter = 30 cm

Try This

1. (a) What is the perimeter of this square?

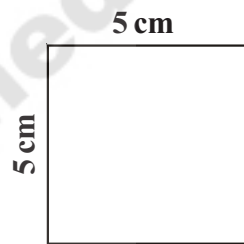


- (b) A small square of side 1 cm is cut off from each of its corners.

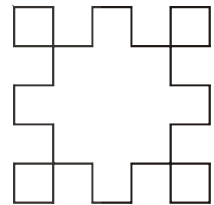


Will the perimeter change?

2. (a) What is the perimeter of this square?

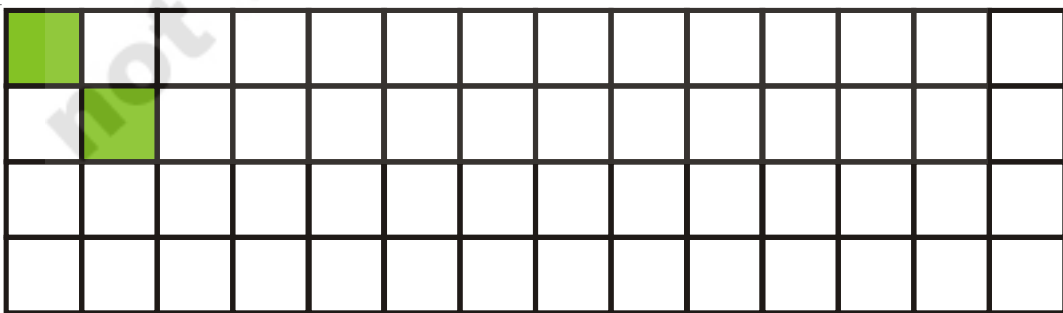


- (b) Will the perimeter of the square change, if the sides are cut off as shown here?



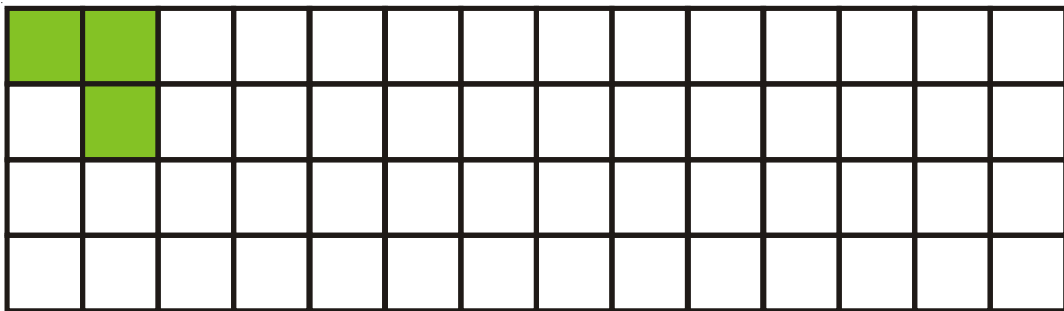
Playing with squares

Draw as many different shapes as possible using 2 squares on the square sheet given below. One has been done for you. Do not forget to see the shapes your friends have drawn.



- (a) Are all the shapes occupying the same amount of space on the square sheet?
- (b) Do all of them have the same perimeter? Which shape has the longest perimeter and which shape has the shortest?

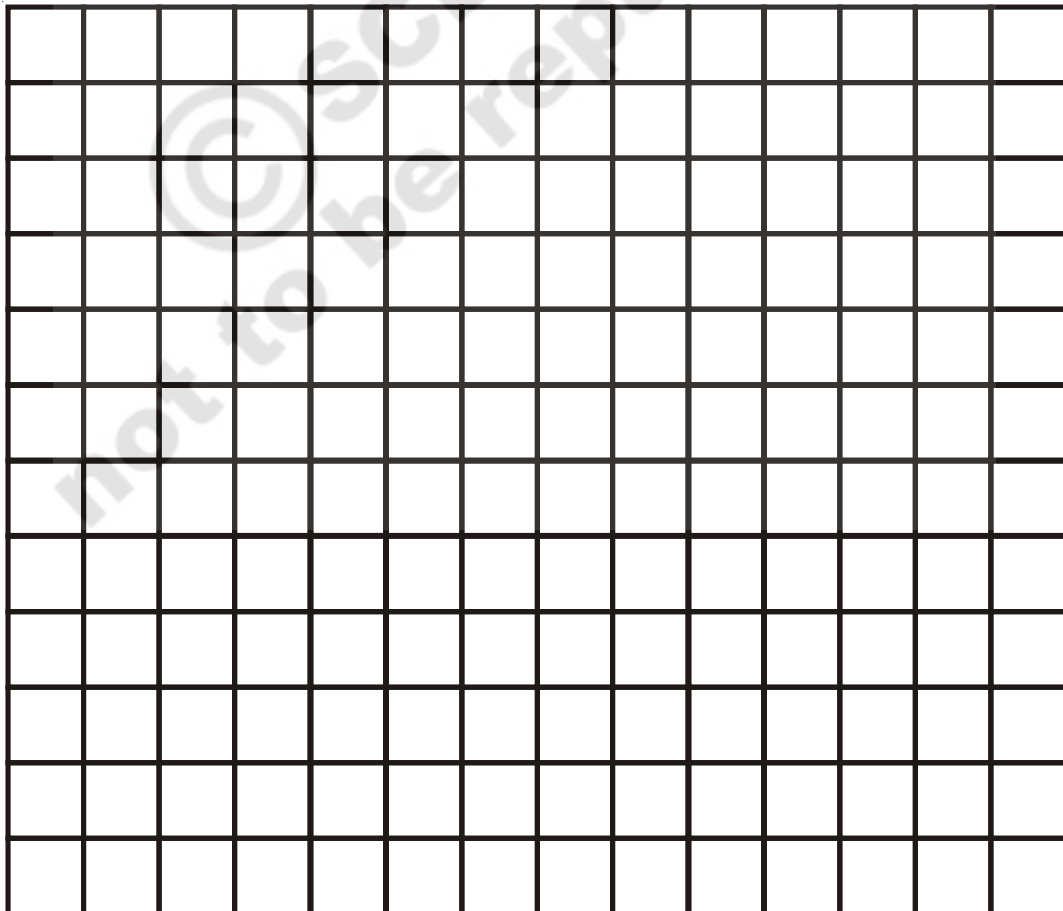
Now, draw as many different shapes as possible using 3 squares. Do not forget to see the shapes your friends have drawn.



- (a) Are all the shapes occupying the same amount of space on the square sheet?
- (b) Do all of them have the same perimeter? Which shape have the longest perimeter? Which shape has the shortest perimeter?

Try This

Draw as many different shapes as possible using 4 squares. Do not forget to see the shapes your friends have drawn. Hint: 12 different shapes are possible.



- (a) Are all the shapes occupying the same amount of space on the square sheet?
- (b) Do all of them have the same perimeter? Which shape has the longest perimeter and which shape has the shortest?

How many match boxes can cover your maths textbook?

Lavanya is playing a game. She is putting matchboxes on a maths textbook in such a way that there is no gap between adjacent matchboxes and the matchboxes also do not overlap each other.



25 matchboxes will cover the textbook completely.



Now, Lavnya starts covering her notebook with match boxes.

- (a) Estimate, how many boxes are still needed to cover the notebook completely?
- (b) Is the notebook smaller than the textbook?



Try This

1. How many matchboxes will cover the following completely?

(a)



(b)

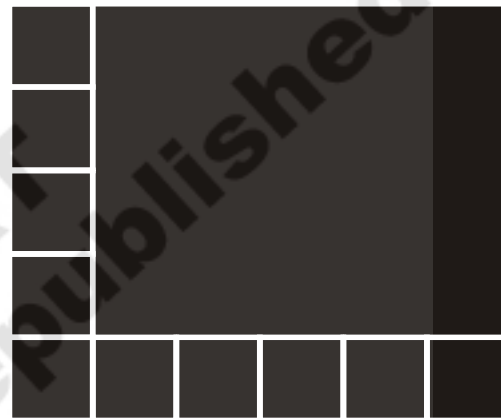
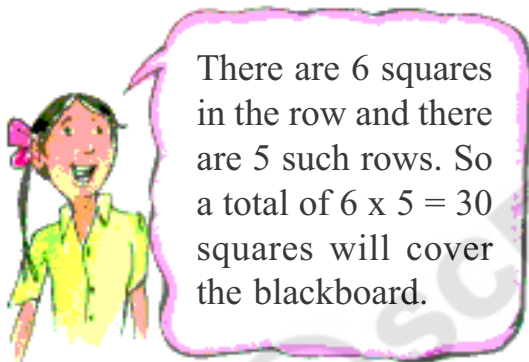


2. Estimate, how many maths textbooks will be needed to cover your teacher's table completely.

Now, check your estimate by actually covering your teacher's classroom table with maths textbooks. How many books were needed?

The teacher saw Lavanya playing her game. She decided to use this opportunity to introduce her class 5 children to the meaning of area. She drew squares of the same size on as shown below the blackboard.

She then asked the children- How many such squares will cover this blackboard completely ?



Teacher : You are correct. 30 squares will cover the blackboard. So, the space occupied or area of the blackboard = 30 squares.

What about this black board?



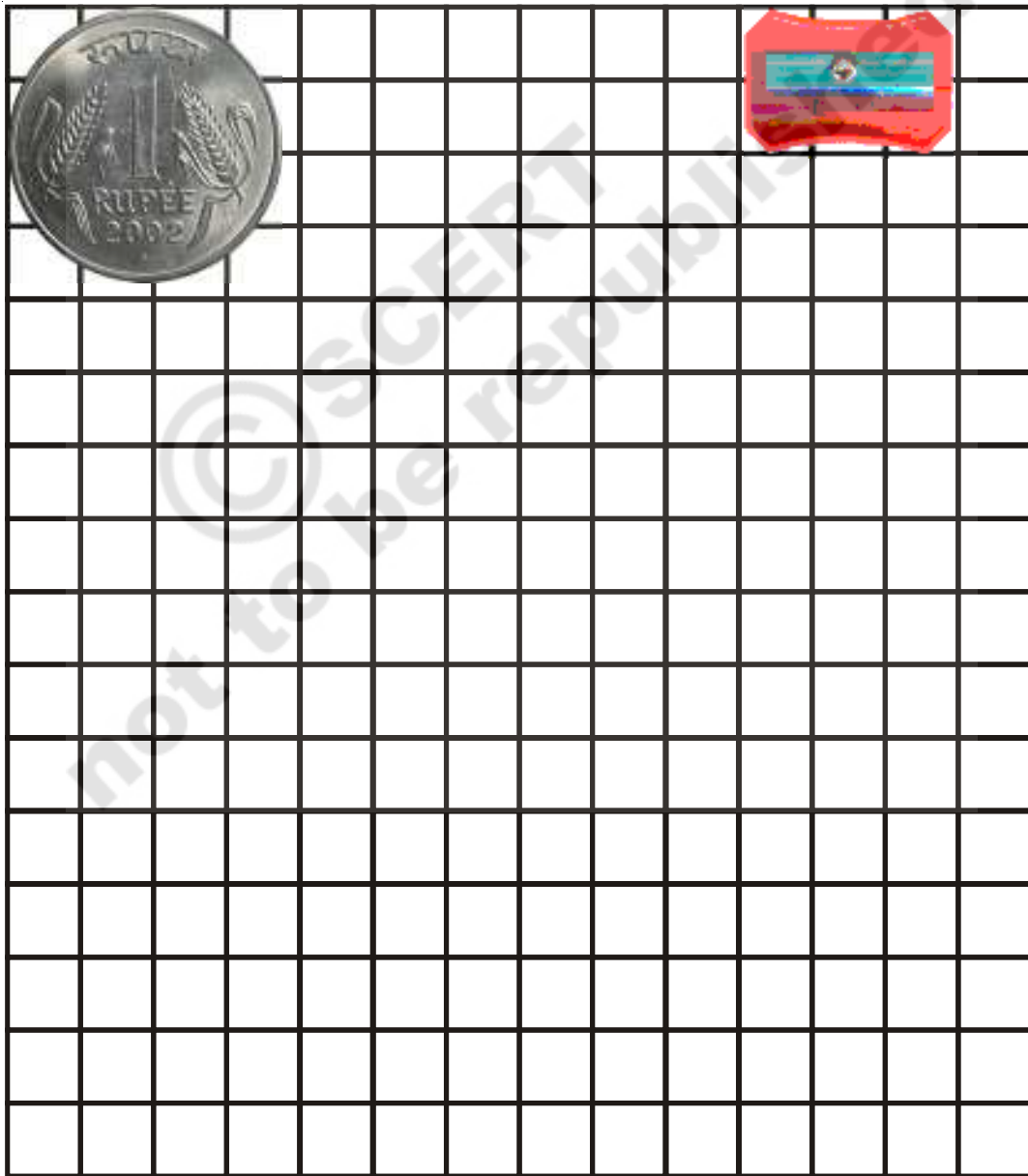
The space occupied or area of the blackboard = _____ squares

Try This

Put your sharpener on this square sheet. How much area does each face of the sharpener occupy? What about the area occupied by your sharpener? Your geometry box? Put anything you wish on this square sheet and find out the area of its face? One example has been done for you.

The sharpener covers about 6 squares of area.

Krishna feels that the coin covers 10 squares but Gita feels that it covers 11. What do you think?



Try This

Farzana is dividing her land equally among her four children. She wants to distribute the land in such a way that each child gets one house as well as access to the one well on her land. Help Farzana divide her land. What part of land would each child get? Write in the form of fraction.

