



**BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034**

**CLASS V SUBJECT: Mathematics TERM II (2020-2021)**

**TOPIC – MEASURING SURFACES SUBTOPIC – AREA & PERIMETER**

**WEEK : 18.01.2021 to 22.01.2021**

### LEARNING OUTCOMES

Each child will be able to:

- ❖ solve real life problems based on area and perimeter.
- ❖ revise the topic by solving questions based on the topic.

In our day to day life, we come across many situations where we have to use mathematical concepts and operations to solve them. Let us look at some examples:

**Example 1: A room is of length 5 m and breadth 4 m. Find the cost of cementing the room at the rate of ₹ 40 per square meter.**

**Solution: Since the whole surface of the floor is to be cemented, so we need to find out the area of the floor.**

$$\begin{aligned}\text{Area of the room} &= \text{length} \times \text{breadth} \\ &= 5 \times 4 = 20 \text{ square m}\end{aligned}$$

$$\text{Cost of cementing 1 sq m area of the room} = ₹ 40$$

$$\text{Cost of cementing 20 sq m area of the room} = 20 \times 40 = ₹ 800$$

**Thus, the cost of cementing the room is ₹ 800**

**Example 2: A rectangular garden of length 50 m and breadth 40 m needs to be fenced. Find the length of fencing required? What will be the cost of fencing at ₹ 40 per m.**

**Solution: Since the boundary of the garden is to be fenced, so we need to find out the perimeter of the garden.**

$$\begin{aligned}\text{Perimeter of the garden} &= 2 \times (l + b) = 2 \times (50 + 40) \\ &= 2 \times 90 = 180 \text{ m}\end{aligned}$$

$$\text{Now, Cost of fencing 1m} = ₹ 40$$

$$\text{Cost of fencing 180m} = 180 \times 40 = ₹ 7200$$

**Thus, the cost of fencing the garden is ₹ 7200**

**Let's solve the following situations by applying the concept of area and perimeter: (To be done in the notebook)**

**Q1. A rectangular balcony is 4 feet wide and 9 feet long. What is its area of the balcony?**

**Q2. Each side of a square notepad is 10 centimetres long. What is the area of the notepad?**

**Q3. A rectangular restaurant kitchen is 10 meters long and 8 meters wide. What is its area? How many square tiles with dimension 8 cm will be needed to cover the floor?**

**Q4. The perimeter of a rectangular patch of a garden is 86 meters. The patch is 19 meters wide. How long is it?**

**Q5. A rectangular vegetable patch is 8 meters wide and 9 meters long. What is its area? If four vegetable plants can be planted per square meter, how many plants can be planted in this patch?**

**Q6. A room is of length 5 m and breadth 4 m. Find the cost of cementing the room at the rate of ₹40 per square meter.**

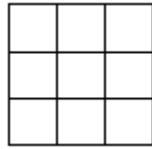
**Q7. The perimeter of a square school yard is 400 meters. Find out the area of the school yard.**

**REVISION TIME**

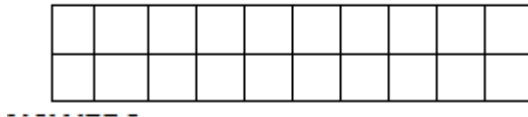
**Ques1. Fill in the blanks:**

- The amount of surface covered by a plane closed figure is called its \_\_\_\_\_.
- A square with side 1cm will have an area of \_\_\_\_\_.
- Area of a square with side 2m is \_\_\_\_\_square metres.
- Length of a boundary of a closed figure is called its \_\_\_\_\_
- If the area of a square is 81 square cm, the length of one side is \_\_\_\_\_.

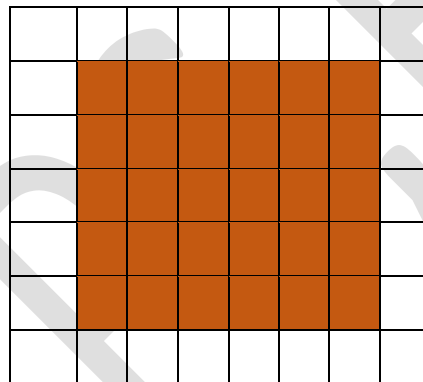
f) Find the perimeter and area of the figure by counting the square if each side of the small square is 1cm.



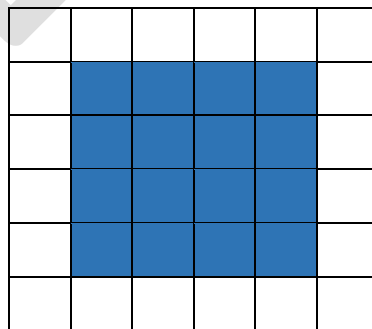
g) Draw one straight line in the following rectangle to divide it into two equal triangles. What is the area of each of the triangles?



h) Write a multiplication sentence for each model.



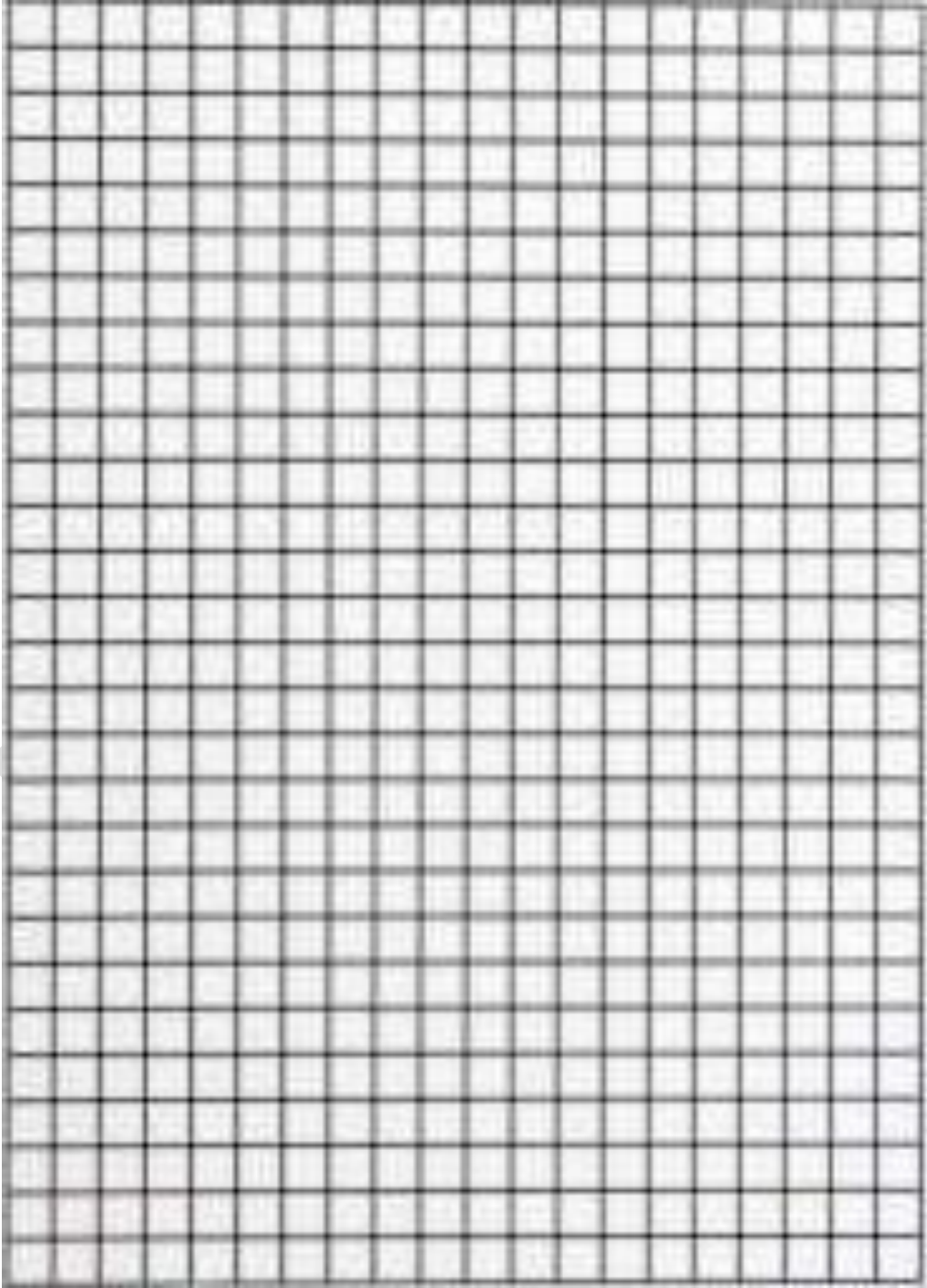
$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

**ACTIVITY TIME**

Take some pieces of 20cm long thread and make figures of different shapes pasting them in the square grid below. Taking side of each square as 1cm, find out the perimeter and area of all the figures. Check the relation between area and perimeter of different figures and write your observations:



Observations: \_\_\_\_\_  
\_\_\_\_\_