

Perimeter and Area

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Q Fill in the blanks.

① The length of the boundary of a closed figure is called its perimeter.

② A square is a figure in which all the sides are equal.

③ Rectangle is a closed figure having equal opposite sides.

④ Perimeter of a square = 4 × length of one side.

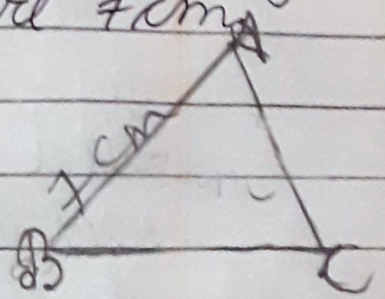
⑤ The surface enclosed by a 2D or plane figure is known as its area.

③ Do as directed

⑥ Find the perimeter of a triangle in which all sides are 7 cm

Ans: Side = 7 cm

$$\begin{aligned}\text{Perimeter} &= \overline{AB} + \overline{BC} + \overline{CA} \\ &= 7 + 7 + 7 \\ &= 3 \times 7 \\ &= 21 \text{ cm}\end{aligned}$$



⑦



Find the area of the above figure if each square of 1 sq. cm.

Ans: The area of a square = 1 sq. cm

Total squares in the figure = 16

The area of the 16 squares = $16 \times 1 = 16 \text{ sq. cm}$

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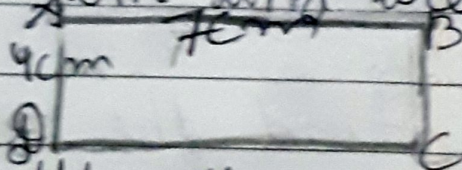
Find the area of the shaded region if each square has an area of 1 sq. cm .

Ans: The area of a square = 1 sq. cm
shaded

Total, squares in the figure = 3

The area of the 3 squares = $3 \times 1 = 3 \text{ sq. cm}$

9 Find the perimeter of the rectangle whose length is 7 cm and breadth is 4 cm .



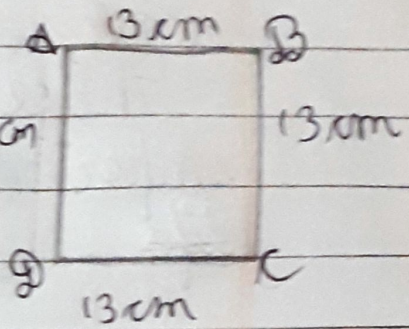
Ans: - length = 7 cm , Breadth = 4 cm

$$\begin{aligned} \text{Perimeter} &= 2 \times (\text{length} + \text{breadth}) \\ &= 2 \times (7 + 4) \\ &= 2 \times 11 \\ &= 22 \text{ cm} \end{aligned}$$

Q Find the perimeter of the square whose side is 13cm.

Ans Side = 13 cm

$$\begin{aligned} \text{Perimeter} &= 4 \times \text{length of one side} \\ &= 4 \times 13 \\ &= 52 \text{ cm} \end{aligned}$$

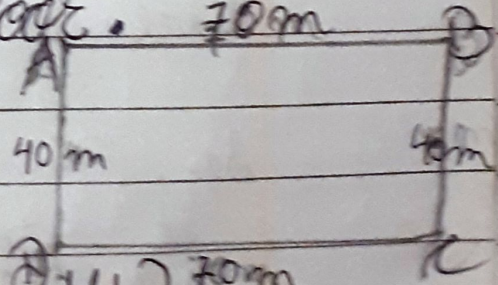


So, Perimeter of the square is 52 cm.

Q Solve the following questions.

Q The length of a floor is 70m and its breadth is 40m. Find the perimeter of the floor.

Ans. Length = 70m, breadth = 40m



$$\begin{aligned} \text{Perimeter} &= 2 \times (\text{length} + \text{breadth}) \\ &= 2 \times (70 + 40) \\ &= 2 \times 110 \\ &= 220 \text{ m} \end{aligned}$$

So, Perimeter of the floor is 220m.

Q A square shaped garden is of length 75m. How much wire will be required for fencing around it thrice? Also write the importance of plant in our life.

Ans: It is a square shaped garden
So perimeter of square garden =

Length of one side 75m

$$\text{Perimeter} = 4 \times (\text{length of one side})$$

$$= 4 \times 75$$

$$= 300\text{m}$$

Wire required for fencing it thrice =
 $= 300 \times 3 = 900\text{m}$

So, 900m wire required for fencing it thrice.

Importance of plant in our life:

① Plants take carbon dioxide and release oxygen from their leaves

to the atmosphere, which humans and other animals need to breathe.

② Plants give us food, medicines and woods.

③ A cloth is 8m long and 5m wide. If Leena wants to lace it around, how much lace is required?

Ans Length (long) of a cloth = 8m

Breadth (width) of a cloth = 5m

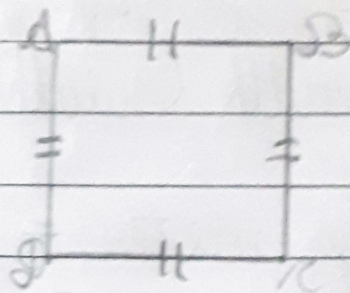
$$\begin{aligned} \text{Perimeter} &= 2 \times (\text{length} + \text{breadth}) \\ &= 2 \times (8 + 5) \\ &= 2 \times 13 \\ &= 26 \text{ m} \end{aligned}$$

Thus, Leena required 26m lace to around it.

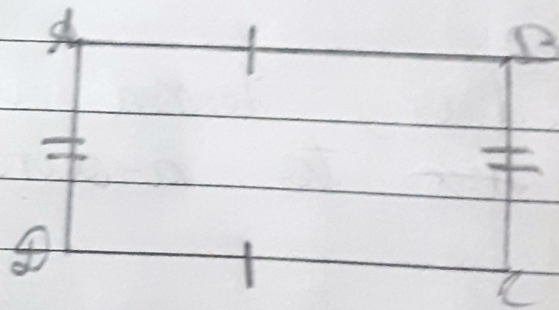
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⑭ Write the formulas to find the perimeter of square, rectangle and triangle.

Ans: - Perimeter of square = $4 \times$ (length of one side).

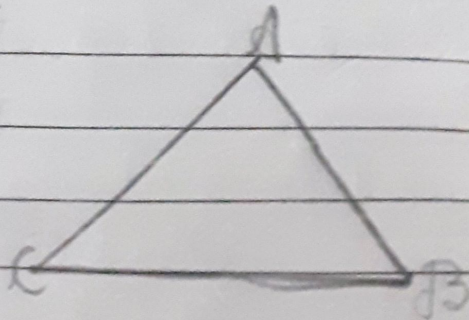


Perimeter of rectangle = ~~2~~
 $2 \times$ (length + breadth)



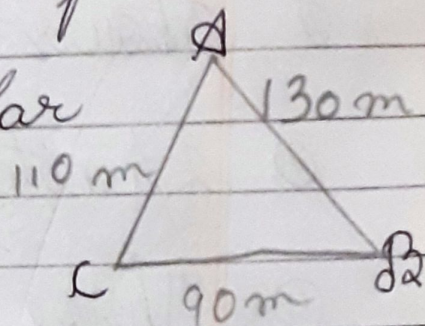
Perimeter of a triangle = Sum of lengths of all three sides:

$$= \overline{AB} + \overline{BC} + \overline{CA}$$



15) A triangular field has its sides of length 130 m, 110 m and 90 m respectively. Calculate the distance travelled by a woman if she goes around the field twice.

Ans Let, $\triangle ABC$ is a triangular field.



It has 3 sides named - \overline{AB} , \overline{BC} , \overline{CA}

Length of $\overline{AB} = 130 \text{ m}$

Length of $\overline{BC} = 90 \text{ m}$

Length of $\overline{CA} = 110 \text{ m}$

Perimeter of a triangular field =
Sum of length of all three sides

$$\begin{aligned} &= \overline{AB} + \overline{BC} + \overline{CA} \\ &= 130 + 90 + 110 = 330 \text{ m} \end{aligned}$$

A woman travelled twice around the field = $330 \times 2 = 660 \text{ m}$

She travelled 660 m around the field twice.