

CLASS NOTES

Class: 4

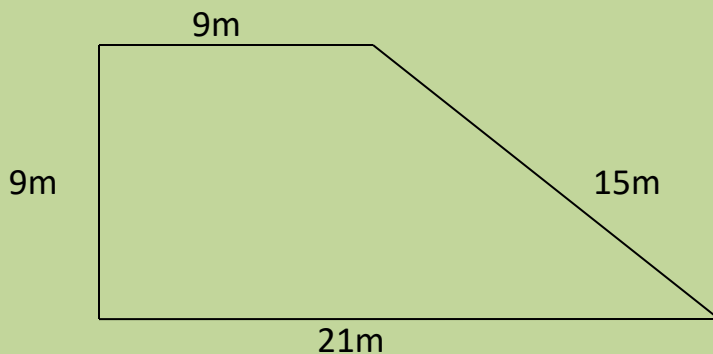
Topic: Chapter– 13

Subject: Mathematics

Fields and Fences

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Rehmat has a field with the following sides



Q.1) Rehmat wants to fence his field, so that animals do not eat his crops. Find the length of wire needed to fence the fields.

Sol.: Perimeter of the field = sum of all sides
 $= 9m + 9m + 15m + 21m = 54m$.

Ans.: Rehmat needs 54m of wire to fence his field.

Q.2) Rehmat bought 70m of wire. Find the length of wire left after fencing his field.

Sol.: Length of wire needed = 54m
Length of wire bought = 70m
Length of wire left = $70m - 54m = 16m$

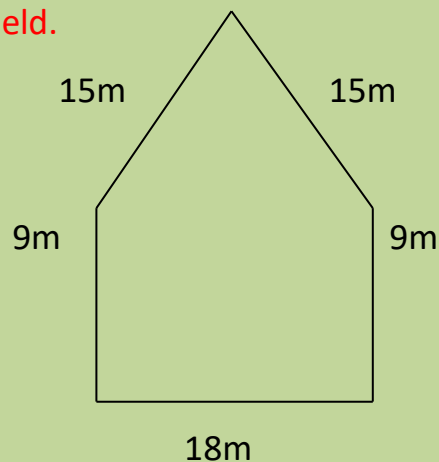
Ans.: 16m of wire is left with Rehmat after fencing his field.

Ganpat also decided to fence his field.

Q.3) How much wire is required by Ganpat?

Sol.: Perimeter of the field = sum of all sides
 $= 15m + 15m + 9m + 9m + 18m = 66m$

Ans.: Ganpat needs 66m of wire to fence his field.

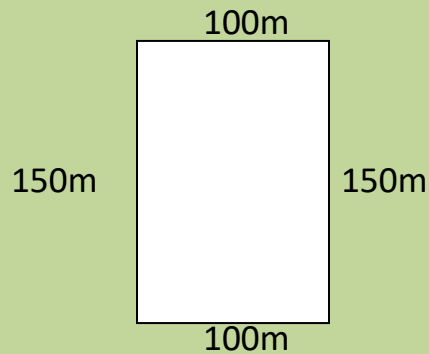


Q.4) If Rehmat gives 16m of wire to Ganpat, then how much more meter of wire is required by Ganpat?

Sol.: Wire required = 66m
Rehmat gave = 16 m
Length of wire required = 66m - 16m = 50m

Ans.: Ganpat required 50m more wire.

Chandu's father takes 4 rounds of a field.



Q.5) Find the distance covered by Chandu's father.

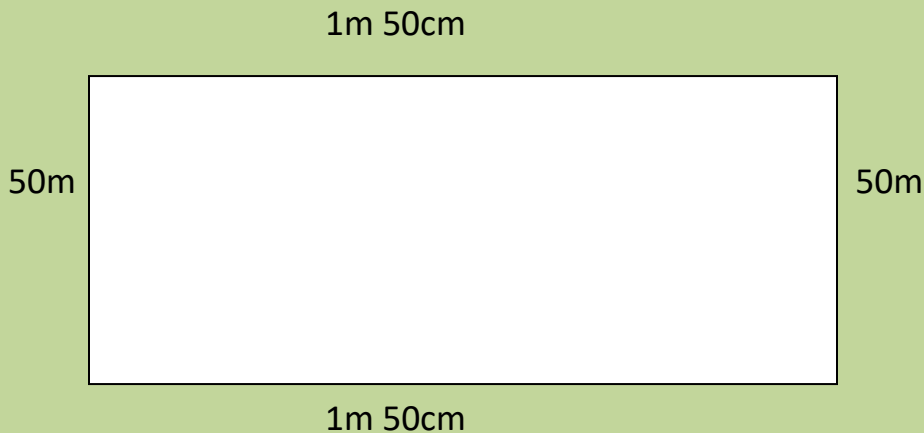
Sol.: Perimeter of a rectangle = $2 \times (l + b)$
= $2 \times (100 + 150) = 2 \times 250\text{m}$
= 500m

1 round of the field = 500m

So, 4 rounds of the field = $500\text{m} \times 4 = 2000\text{m}$ or 2km

Ans.: Chandu's father covers 2km in 4 rounds.

Q.6- Ganpat's wife needs to put a lace around a table cloth.



She bought a roll of 100m lace.

m	cm
1	50
+0	50
2	00

a.) Find how many meters of lace is required for 3 table cloths.

Sol.: Perimeter of a rectangle = $2 \times (l + b)$
 $= 2 \times (1\text{m}50\text{cm} + 50\text{cm}) = 2 \times 2\text{m} = 4\text{m}$

Length of lace required for 1 table cloth = 4m

So, length of lace required for 3 table cloths = $4\text{m} \times 3 = 12\text{m}$

Ans.: 12m of lace is needed for 3 table cloths.

b.) How much of lace will be left?

Sol.: Total length of lace = 100m

Length of lace used = 12m

Length of lace left = $100\text{m} - 12\text{m} = 88\text{m}$

Ans.: 88m of lace is left.

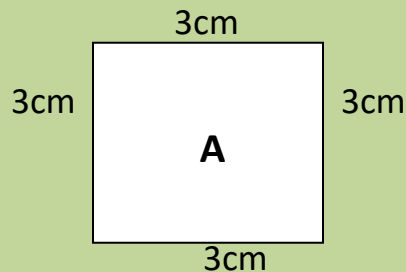
Q.7) A hockey field is 91m 40cm long and 55m wide. Find the perimeter of the field.

Sol.: Perimeter of a rectangle = $2 \times (l + b)$
 $= 2 \times (91\text{m } 40\text{cm} + 55\text{m}) = 2 \times (146\text{m } 40\text{cm})$
 $= 292\text{m } 80\text{cm}$

m	cm
91	40
+ 55	00
146	40

Ans.: Perimeter of the hockey field is 292m 80cm.

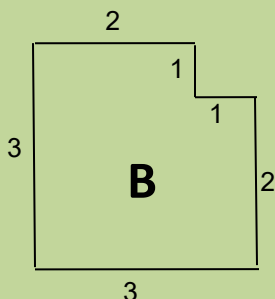
Q8 a) Draw a square with side 3cm, and find the perimeter.



perimeter of square = side \times 4
 $= 3\text{cm} \times 4 = 12\text{cm}$

Perimeter of the above figure is 12 cm.

b) From the corner of this square, a small square of side 1cm is cut off.



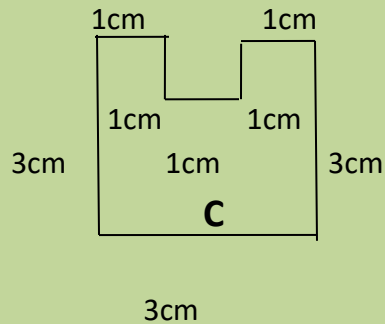
Will the perimeter of figure B be less or more than figure A?

Perimeter of figure B =

$3\text{cm} + 3\text{cm} + 2\text{cm} + 1\text{cm} + 1\text{cm} + 2\text{cm} = 12\text{cm}$

Perimeter of figure A and B are same i.e. 12 cm

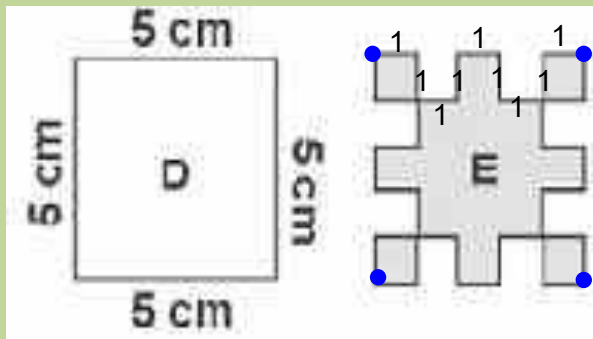
c) Now using the same figure cut 1cm square to get figure C.



Perimeter of figure C =

$$3\text{cm} + 3\text{cm} + 3\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} + 1\text{cm} = 14\text{cm}$$

Q9. Draw a square with side 5 cm and find the perimeter.



Perimeter of square = side \times 4

$$= 5\text{cm} \times 4 = 20\text{cm}$$

If we cut 8 squares of 1 cm from the square (figure D), find the perimeter.

$$\begin{aligned} \text{Perimeter of figure E} &= \text{length of one new boundary} \times 4 \\ &= 9\text{cm} \times 4 = 36\text{cm} \end{aligned}$$

The above content has been prepared at home.