ODM EDUCATIONAL GROUP
Changing your Tomorrow

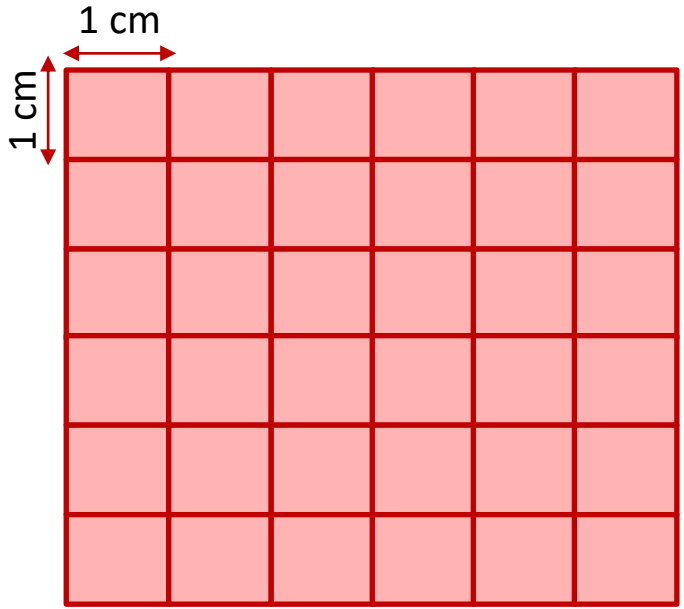
SESSION	**: 18**
CLASS	**: IV**
SUBJECT	**: MATHEMATICS**
CHAPTER NUMBER	**: 14**
CHAPTER NAME	**: PERIMETER AND AREA**
SUBTOPIC	**: AREA OF AN IRREGULAR FIGURE, EX-14 C**

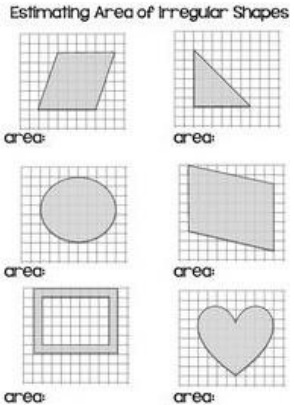
LEARNING OBJECTIVE

- **Enable the students to understand how to find the area of irregular figures.**

AREA OF AN IRRGULAR FIGURE

A graph paper is a squared paper consisting of squares of area 1 cm^2 each. We use a graph paper to find the area of irregular figures.



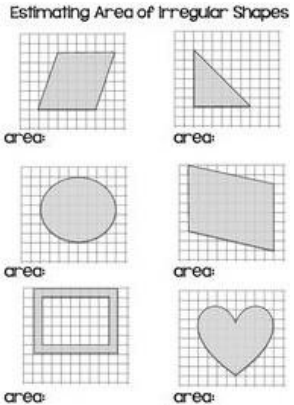


AREA OF AN IRRGULAR FIGURE

Example : Find the area of the irregular figure given below by wising a graph paper.

solution : The irregular figure is first traced onto a graph paper.

- This figure contains some complete squares and some incomplete squares.



AREA OF AN IRRGULAR FIGURE

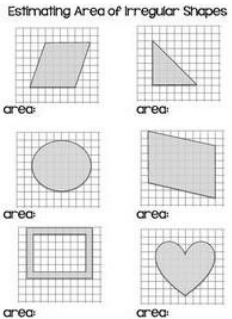
Example : Find the area of the irregular figure given below by wising a graph paper.

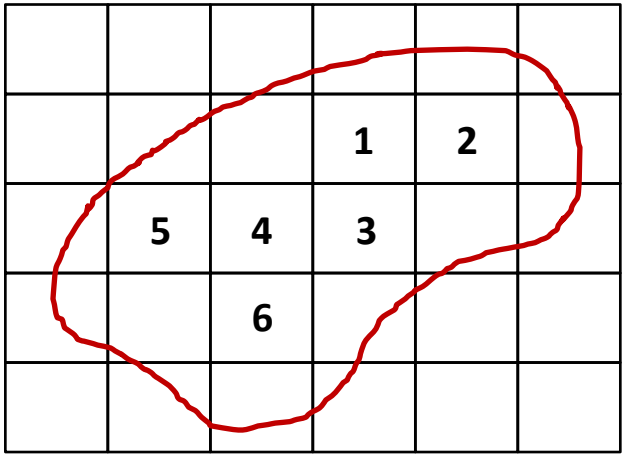
solution :

Step 1 :

- Count the complete squares.

- There are 6 complete squares.





AREA OF AN IRRGULAR FIGURE

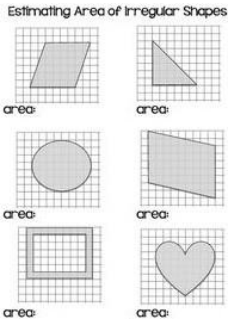
Example : Find the area of the irregular figure given below by wising a graph paper.

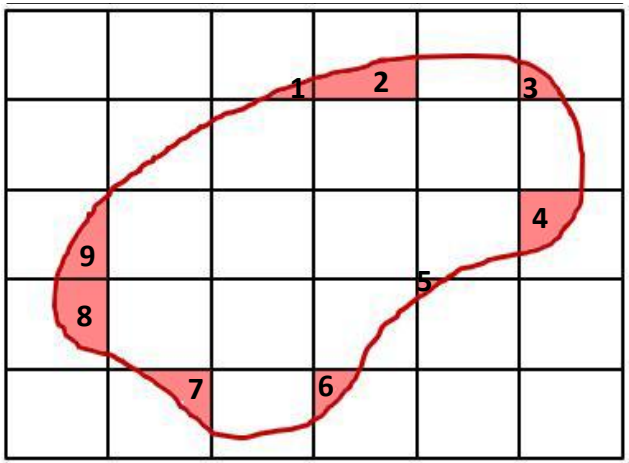
solution :

Step 2 :

- Now, neglect the squares which are less then half of the full squares.

- Neglect 9 squares as shown in the figure.



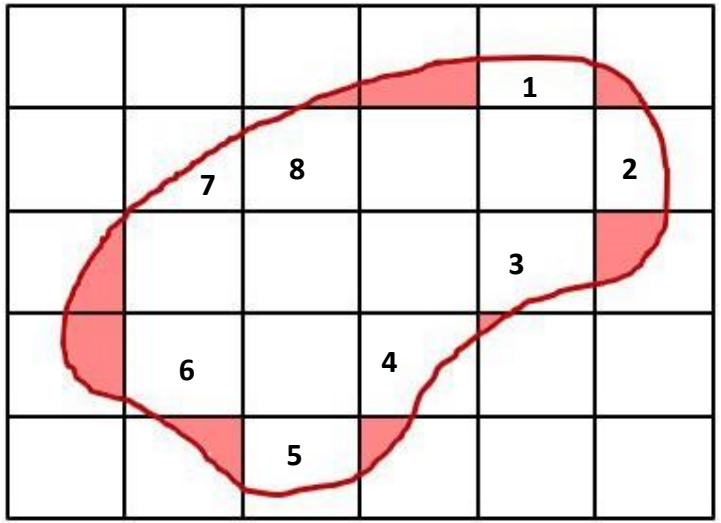


AREA OF AN IRRGULAR FIGURE

Example : Find the area of the irregular figure given below by wising a graph paper.

solution :

Step 3 :



- Count the squares which are half or more than half of the full squares.
- There are 8 such squares.

Now add all the squares.

Total squares = 6 + 8 = 14

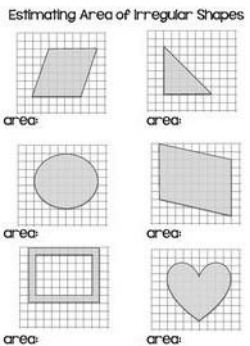
There are approximately 14 complete squares and the area of each sq. is 1 m^2.

∴ Area of the figure = 1 × 14 = **14 m^2**.

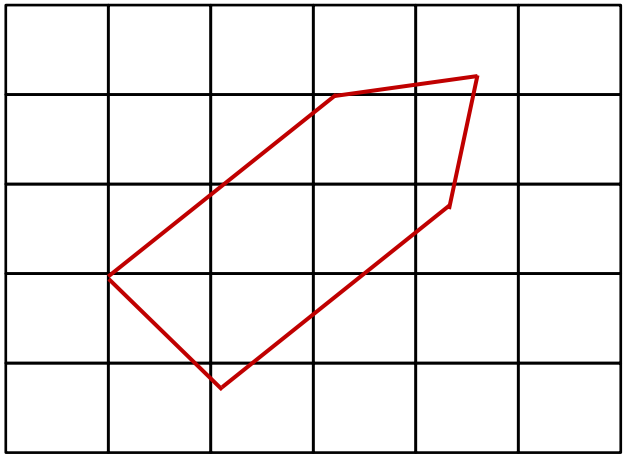
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(a)



Area : **6 cm²**

There are 0 complete squares.

Neglect 6 squares as shown in the figure.

There are 6 half or more than half of the full squares.

Total squares = 6

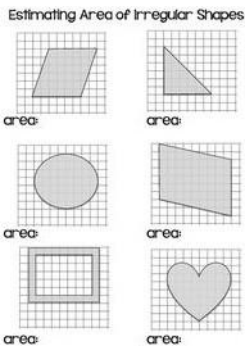
There are approximately 6 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 6 = **6 cm²**.

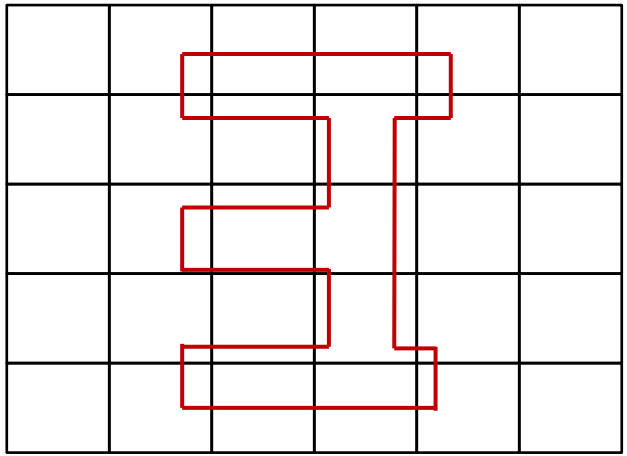
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(b)



Area : **8 cm²**

There are 0 complete squares.

Neglect 10 squares as shown in the figure.

There are 8 half or more than half of the full squares.

Total squares = 8

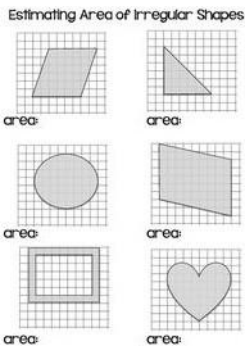
There are approximately 8 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 8 = **8 cm²**.

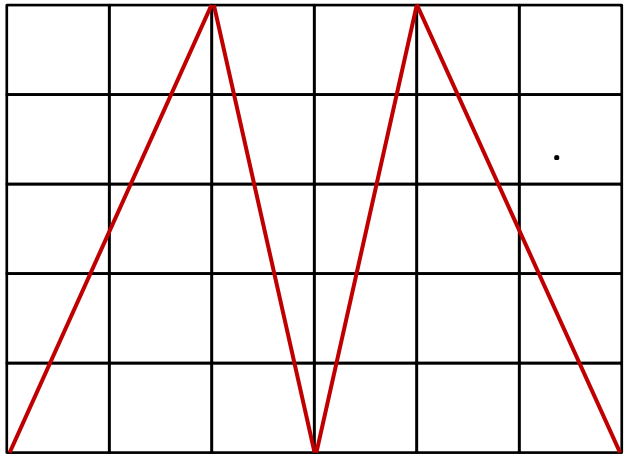
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(c)



Area : **16 cm²**

There are 4 complete squares.

Neglect 10 squares as shown in the figure.

There are 12 half or more than half of the full squares.

Total squares = 4 + 12 = 16

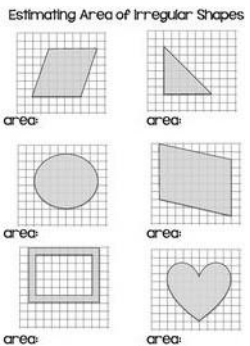
There are approximately 8 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 8 = **16 cm²**.

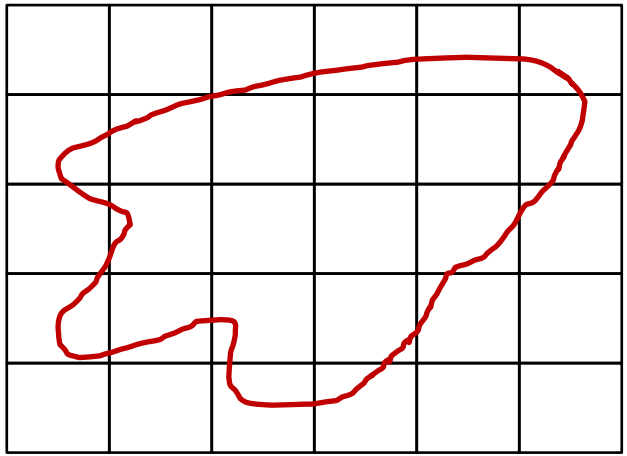
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(d)



Area : **11 cm²**

There are 5 complete squares.

Neglect 10 squares as shown in the figure.

There are 6 half or more than half of the full squares.

Total squares = 5 + 6 = 11

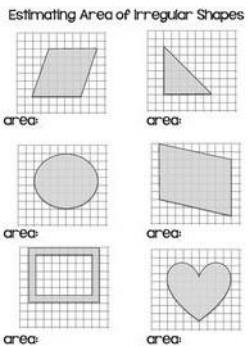
There are approximately 12 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 11 = **11 c m²**.

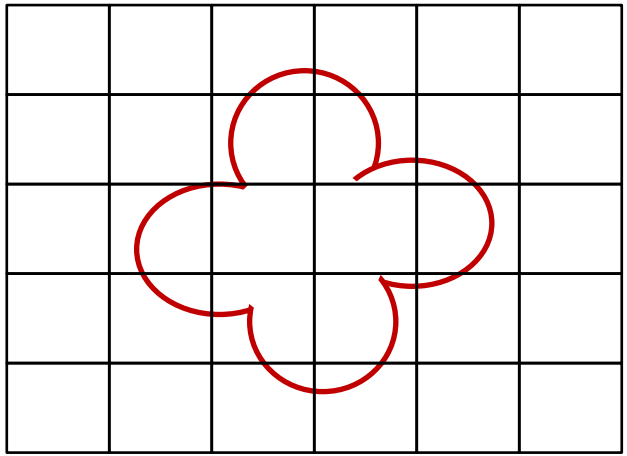
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(e)



Area : **8 cm²**

There are 2 complete squares.

Neglect 6 squares as shown in the figure.

There are 6 half or more than half of the full squares.

Total squares = 2 + 6 = 8

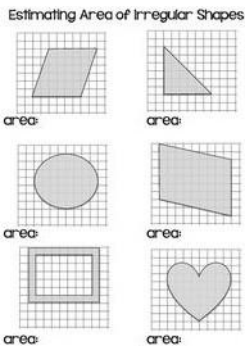
There are approximately 8 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 8 = **8 cm²**.

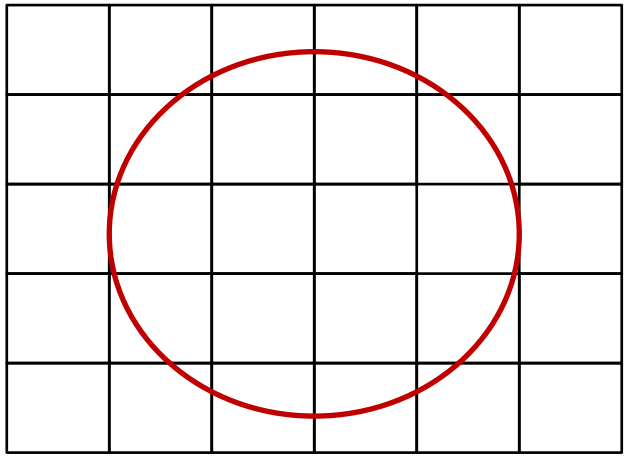
AREA OF AN IRRGULAR FIGURE

EXERCISE – 14 (C)

Find the approximate areas of the following figures.



(f)



Area : **12 cm²**

There are 6 complete squares.

Neglect 8 squares as shown in the figure.

There are 6 half or more than half of the full squares.

Total squares = 6 + 6 = 12

There are approximately 12 complete squares and the area of each sq. is 1 cm².

∴ Area of the figure = 1 × 12 = **12 cm²**.

LEARNING OUTCOME:

Students are able to understand how to find the area of the irregular figures.

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THANKING YOU

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