ODM EDUCATIONAL GROUP
Changing your Tomorrow

MONTH : JANUARY

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 17

CHAPTER NAME : PERIMETER AND AREA

SUB-TOPIC : PERIMETER REVISION and EXERCISE 17 A

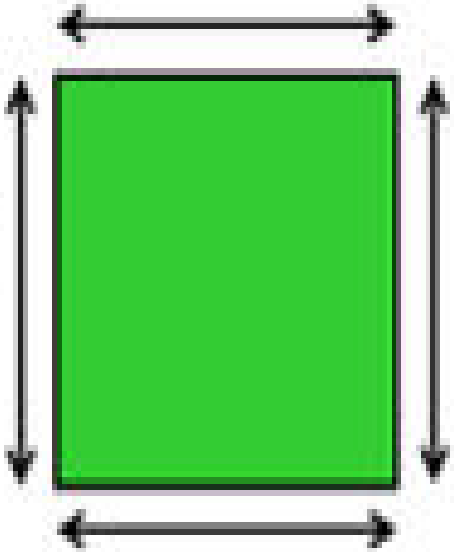
Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

PERIMETER

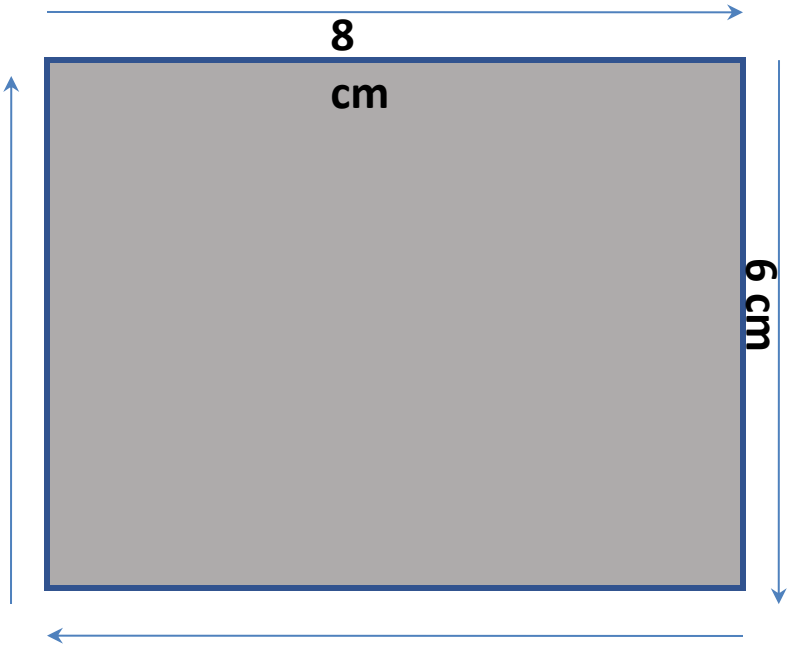
ODM EDUCATIONAL GROUP
Changing your Tomorrow

What is Perimeter?

The perimeter is the distance all the way around the outside of a 2D shape.



PERIMETER



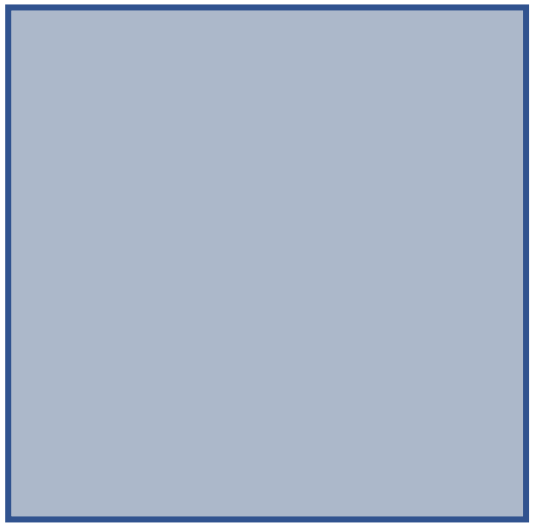
Perimeter of this rectangle =

Length + length + breadth + breadth **= 2 length + 2 breadth**

= 2 (length + breadth) = 2 x (l + b) **= 2 x (8 + 6) = 2 x 14 = 28 cm**

PERIMETER

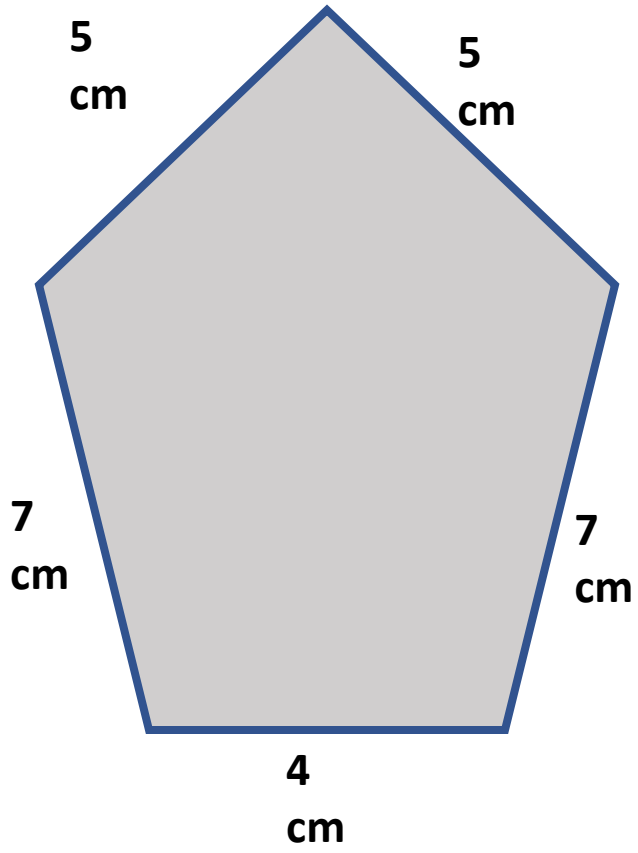
5 cm



Perimeter of a square = side + side + side + side = 4 x side

= 4 x 5 = 20 cm

PERIMETER



Perimeter of this fig. = 5 cm + 5 cm+ 7 cm + 7 cm + 4 cm =

28 cm

Perimeter of any irregular shape is the sum of its sides

EXERCISE 17 A

ODM EDUCATIONAL GROUP
Changing your Tomorrow

2. Find the perimeter

a) S = 7.6 cm

Perimeter = 4 x 7.6 = **30.4 cm**

b) S = $18\frac{2}{3}$

Perimeter = 4 x $18\frac{2}{3}$

4 x $\frac{56}{3}$ = $\frac{224}{3}$ = **$74\frac{2}{3}$ cm**

c) 13 m 75 cm

Perimeter = 4 x 13.75 = **55 cm**

EXERCISE 17 A

4 . The length of a rectangular field is three times the breadth. If the breadth is $3\frac{1}{2}$ m , find the perimeter.

Breadth = $3\frac{1}{2}$ m = $\frac{7}{2}$ m

Length = three times of breadth = $\frac{7}{2} \times 3 = \frac{21}{2}$ m

Perimeter = 2 x l + b = $2 \times \left(\frac{7}{2} + \frac{21}{2}\right)$

$= 2 \times \frac{28}{2}$ **= 28 m**

∴ The perimeter of the rectangular field is 28 m.

EXERCISE 17 A

5 . The breadth of a rectangular garden is 6 m less than its length. If the length is 30 m , find the perimeter.

Length of the garden = 30 m

Breadth = 6 cm less than length = 30 – 6 = 24 m

Perimeter = 2 x (l + b) = 2 x (30 + 24)

= 2 x 54 = **108 m**

∴ **The perimeter of the rectangular garden is 108 m.**

EXERCISE 17 A

7. Sonu bought a tablecloth 2.25 m long and 1.75 m wide . She wanted to put lace around it. How many metres lace would she has to buy? Also find out how much would the lace cost if it costs ₹ 14. 50 per metre.

Length of the tablecloth = 2 . 25 m

Wide / breadth of the tablecloth = 1.57 m

Lace needed = Perimeter = 2 x (l +b) =

2 x (2. 25 + 1.75) = 2 x 4 m = **8 m**

Sonu needs 8m lace.

Cost of 1 m of lace = ₹14. 50

Cost of 8 m of lace = 8 x 14.50 = **₹ 116**

∴ **Sonu will need 8 m of lace of ₹116.**

EXERCISE 17 A

ODM EDUCATIONAL GROUP

8. Akash covers 48 m while going around a square field twice. Find the side of the square. How much wire will be required for fencing around it once. Find the cost of wire if one metre costs ₹ 1. 75.

Distance covered while going twice around a square field = 48 m

Distance covered going around ones $= \frac{48}{2}$ = 24 m

So, perimeter is 24 m .

Side of the square field $= \frac{24}{4}$ **= 6 m**

Cost of 1 m of wire = ₹1 .75

Cost of 24 m of lace = 24 x 14.50 = **₹ 42**

∴ The side of the square field is 6 m and 24 m of wire is needed at a cost of ₹42 for fencing around it once.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

Students are able:

- **To recall the previously learned terms and formulae of finding perimeter of square and rectangles.**

ODM EDUCATIONAL GROUP
Changing your Tomorrow

Complete Exercise 17 A Q.no. 1 to 3 in the copy.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP

ODM EDUCATIONAL GROUP
Changing your Tomorrow

MONTH : JANUARY

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 17

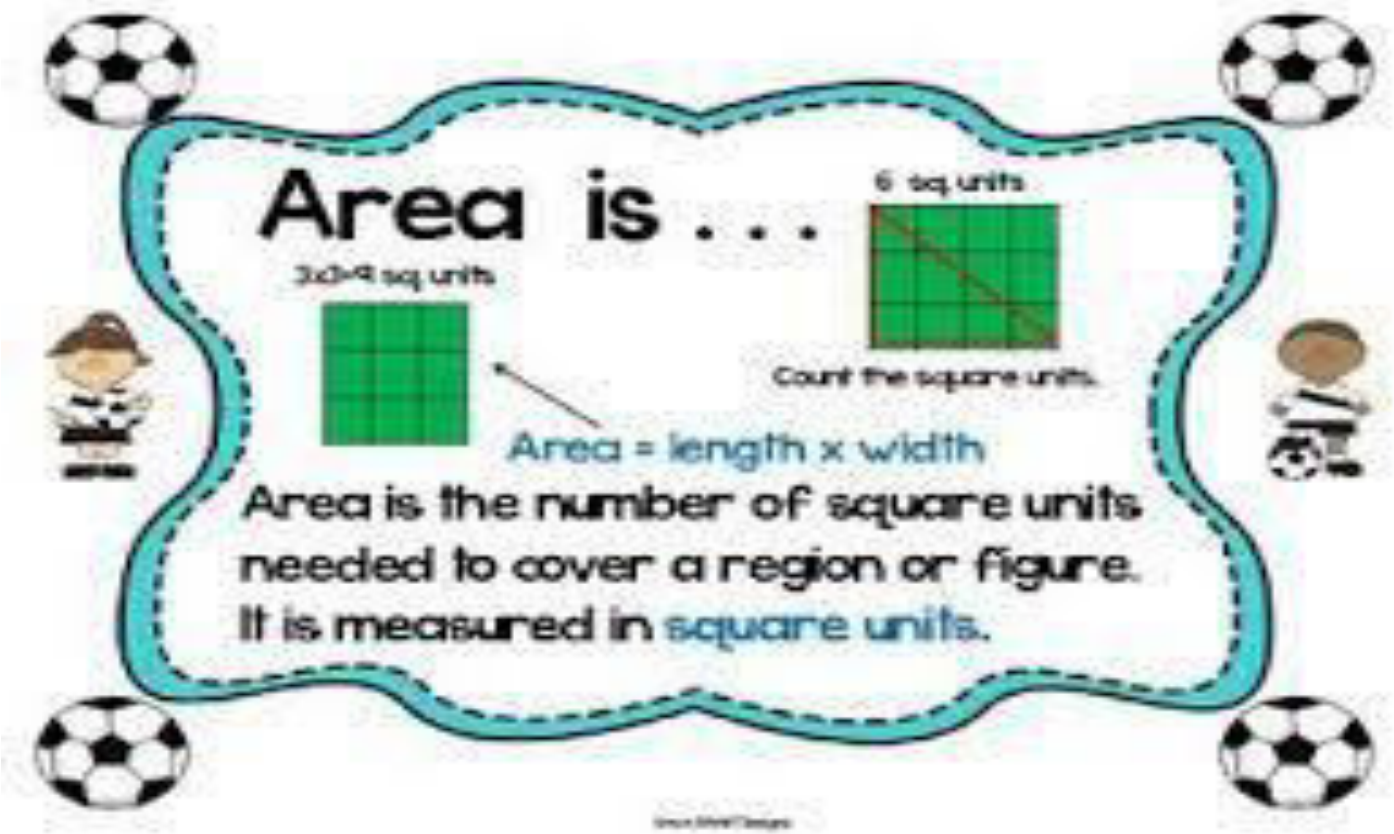
CHAPTER NAME : PERIMETER AND AREA

SUB-TOPIC : AREA OF RECTANGLE AND SQUARE

EXERCISE 17 C Q. 1 TO 5

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

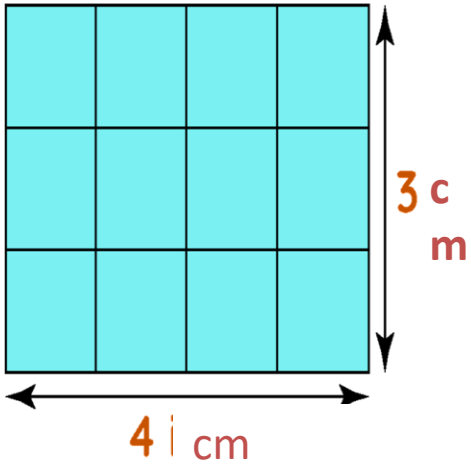
AREA


Area is . . .
3x3=9 sq units
6 sq units
Count the square units.
Area = length x width
Area is the number of square units needed to cover a region or figure.
It is measured in square units.


Area & Perimeter

AREA OF A RECTANGLE

ODM EDUCATIONAL GROUP
Changing your Tomorrow



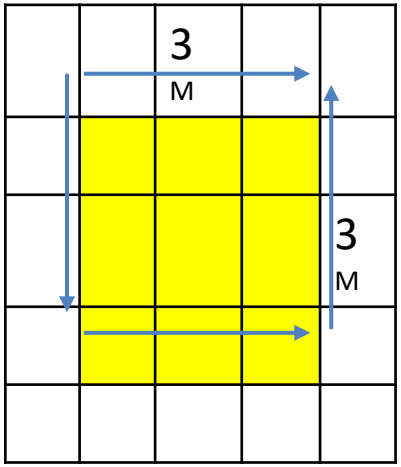
In the picture, area = length x breadth

$= 4 \times 3 = 12\ cm^2$

As Area is the space covered by a particular shape.
The no. of squares covered is 12.

Area of a rectangle = l x b

AREA OF A SQUARE



In the picture, area = side x side

$= 3 \times 3 = 9\ m^2$

As Area is the space covered by a particular shape.
The no. of squares covered is 9.

Area of a square = side x side

AREA

ODM EDUCATIONAL GROUP
Changing your Tomorrow

When area of a rectangle is given length= $\frac{AREA}{BREADTH}$

If breadth of a rectangle is 30 cm and Area is 300 sq.cm. find the length.

$L = \frac{A}{B} = \frac{300}{30} = 10 \text{ cm}.$

When area of a rectangle is given breadth = $\frac{AREA}{LENGTH}$

If length of a rectangle is 40 cm and Area is 320 sq.cm. find the breadth.

$B = \frac{A}{l} = \frac{320}{40} = 8 \text{ cm}$

EXERCISE 17 C

ODM EDUCATIONAL GROUP
Changing your Tomorrow

1. Find the area of rectangles whose length and breadth is given.

a. L = 10 m B = 7m

Area = l x b = 10 x 7 = **70 sq.m**

b. L = 15 cm B = 20 cm

Area = l x b = 15 x 20 = **300 sq.cm**

EXERCISE 17 C

ODM EDUCATIONAL GROUP
Changing your Tomorrow

2. Find the area of square whose one side is given.

a. Side = 1 m 10 cm = 110 cm

Area = side x side = 110 x 110 = **12100 sq.cm**

b. Side = 5 m 25 cm = 5 2 5 cm

Area = side x side = 5 2 5 x 5 2 5 = **275625 sq.cm**

EXERCISE 17 C

3. Study and find the answers.

a. L = 50 cm Area = 300 sq.cm

$$B = \frac{A}{L} = \frac{300}{50}$$ **= 6 cm**

b. B = 12 m Area = 156 sq.m

$$L = \frac{A}{B} = \frac{156}{12}$$ **= 1 3 m**

WORD PROBLEMS

EXERCISE 17 C

ODM EDUCATIONAL GROUP
Changing your Tomorrow

4. Mr. Seth has a beautiful lawn in his garden. Its area is 98 m^2 and its length is 14 m. what is its breadth?

Area of the lawn = $98\ m^2$

Length = 14 m

Breadth = $\frac{area}{length} = \frac{98}{14}$ **= 7 m**

Therefore the breadth of the lawn is 7 m.

WORD PROBLEMS

EXERCISE 17 C

5. The size of a square field is 35 m long . Find the area of the field. Find also the cost of levelling the field at the rate of ₹ 5 per sq. metre.

Length of the square field = 35 m

Are of the field = L x L = 35 x 35 = **1225 sq. m.**

Cost of levelling per sq. m = ₹ 5

Cost of levelling 1225 sq. m = 1225 x 5 = **₹ 6,125**

So the area of the field is 1225 sq. m and to level it we need ₹ 6, 125.

Learning Outcomes

ODM EDUCATIONAL GROUP
Changing your Tomorrow

Students are able:

To find the area of rectangle and square.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP

ODM EDUCATIONAL GROUP
Changing your Tomorrow

MONTH : JANUARY

CLASS : V

SUBJECT : MATHEMATICS

CHAPTER NUMBER: 17

CHAPTER NAME : PERIMETER AND AREA

SUB-TOPIC : AREA OF RECTANGLE AND SQUARE

EXERCISE 17 C Q. 6 TO 8

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

WORD PROBLEMS

EXERCISE 17 C

ODM EDUCATIONAL GROUP
Changing your Tomorrow

6. A swimming pool is 15 m long and covers 135 m^2 . Find its breadth. Also find its perimeter.

Length of the swimming pool = 15 m

Area of the swimming pool = $135\ m^2$

Breadth = $\frac{area}{length}$ = $\frac{135}{15}$ **= 9 m**

Perimeter = 2 x (L + B) = 2 x (15 + 9) = 2 X 24 = **48 m**

Thus, the breadth and perimeter of the swimming pool is 9 m and 48 m respectively.

WORD PROBLEMS

EXERCISE 17 C

7. A rectangular field is 48 m long and 40 m broad. Find the cost of levelling the field at the rate of ₹ 3 per sq. metre.

Length of the field = 48 m

Breadth = 40 m

Area = L x B = 48 m X 40 m = **1920 sq m**

Cost of levelling 1 sq. m = ₹ 3

Cost of levelling 1920 sq m = 1920 x 3 = **₹ 5, 760**

So, the cost of levelling the field is ₹ 5, 760

WORD PROBLEMS

EXERCISE 17 C

ODM EDUCATIONAL GROUP
Changing your Tomorrow

8. The area of a hall is 1620 m^2 . The breadth of the hall is 36 m . Find the length of the hall . Also find the perimeter of the hall.

The area of the hall = $1620\ m^2$

Breadth = 36 m

Length = $\frac{area}{breadth}$ = $\frac{1620}{36}$ **= 45 m**

Perimeter of the hall =

2 x L + B = 2 (36 + 45) = 2 x 81 = **162 m**

Therefore, the length of the hall is 45 m and the perimeter is 162 m.

Learning Outcomes

ODM EDUCATIONAL GROUP
Changing your Tomorrow

Students are able:

To find the area of rectangle and square.

ODM EDUCATIONAL GROUP
Changing your Tomorrow

THANKING YOU

ODM EDUCATIONAL GROUP