

Maharashtra Board Solutions Class 5-Maths

(Problem Set 49) - Part 2: Chapter 12-

Perimeter and Area



For any clarifications or questions you can write to info@indcareer.com

Postal Address

IndCareer.com, 52, Shilpa Nagar, Somalwada Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888, **Website:** <https://www.indcareer.com>

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>



Maharashtra Board Solutions Class 5-Maths

(Problem Set 49) - Part 2: Chapter 12-

Perimeter and Area

Class 5: Maths Chapter 12 solutions. Complete Class 5 Maths Chapter 12 Notes.

Maharashtra Board Solutions Class 5-Maths (Problem Set 49) - Part 2: Chapter 12- Perimeter and Area

Maharashtra Board 5th Maths Chapter 12, Class 5 Maths Chapter 12 solutions

Important Questions and Answers.

Question 1.

How much wire will be needed to make a rectangle 7 cm long and 4 cm wide?

Solution:

Perimeter of a rectangle

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 7 + 2 \times 4$$

$$= 14 + 8$$

$$= 22 \text{ cm}$$

$\therefore$ 22 cm wire will be needed to make a rectangle

Question 2.

If the length of a rectangle is 20 m and its width is 12m, what is its perimeter?

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

Solution:

Perimeter of a rectangle

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 20 + 2 \times 12$$

$$= 40 + 24$$

$$= 64 \text{ m}$$

$\therefore$ Perimeter is 64 m

Question 3.

Each side of a square is 9 m long. Find its perimeter.

Solution:

Perimeter of a square

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

$$= 4 \times 9$$

$$= 36 \text{ m}$$

$\therefore$ Perimeter is 36 m

Question 4.

If we take 4 rounds around a field that is 160 m long and 90 m wide, what is the distance we walk in kilometres?

Solution:

Perimeter of a rectangular field

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 160 + 2 \times 90$$

$$= 320 + 180$$

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

$$= 500 \text{ m}$$

In one round distance walked is 500 m, hence, distance walked in 4 rounds

$$= 500 \times 4$$

$$= 2000 \text{ m}$$

$$= 2 \text{ km}$$

$\therefore$ The distance walked in 4 rounds is 2 km

Question 5.

Sanju completes 12 rounds around a square park every day. If one side of the park is 120 m, find out in kilometres and metres the distance that Sanju covers daily.

Solution:

Perimeter of a square

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

$$= 4 \times 120$$

$$= 480 \text{ m}$$

So, in one round the distance can be covered is 480 m, hence in 12 rounds the distance can be covered is

$$= 480 \times 12$$

$$= 5760 \text{ m}$$

$$= 5000 \text{ m} + 760 \text{ m}$$

$\therefore$ Sanju covers 5 km 760 m daily

Question 6.

The length of a rectangular plot of land is 50 m and its width is 30 m. A triple fence has to be put along its edges. If the wire costs 60 rupees per metre, what will be the total cost of the wire needed for the fence?

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

Solution:

Perimeter of a rectangular plot

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 50 + 2 \times 30$$

$$= 100 + 60 = 160 \text{ m}$$

For a triple fence, wire needed

$$= 3 \times 160 = 480 \text{ m}$$

Cost of the wire needed

$$= \text{wire needed} \times \text{rate}$$

$$= 480 \times 60$$

$$= 28800 \text{ rupees}$$

$\therefore$ The total cost of the wire needed for the fence is ₹ 28,800

Question 7.

A game requires its players to run around a square playground. Each side of the playground is 20 m long. One player took 5 rounds around the playground. How many metres did he run altogether?

Solution:

Perimeter of a square

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

$$= 4 \times 20$$

$$= 80 \text{ m}$$

In one round 80 m.

So in 5 round

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

$$= 80 \times 5$$

$$= 400$$

$$= 400 \text{ m}$$

$\therefore$ He runs altogether = 400 m

Question 8.

Four rounds of wire fence have to be put around a field. If the field is 60 m long and 40 m wide, how much wire will be needed?

Solution:

Perimeter of rectangular field

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 60 + 2 \times 40$$

$$= 120 + 80$$

$$= 200 \text{ m}$$

Hence, wire required for 4 rounds

$$= 200 \times 4$$

$$= 800 \text{ m}$$

$\therefore$ Wire required for 4 rounds

$$= 800 \text{ m}$$

Question 9.

The sides of a triangle are 24.7cm, 20.4 cm and 10.5 cm respectively. What is the perimeter of the triangle?

Solution:

Perimeter of triangle

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

$$= 24.7 + 20.4 + 10.5$$

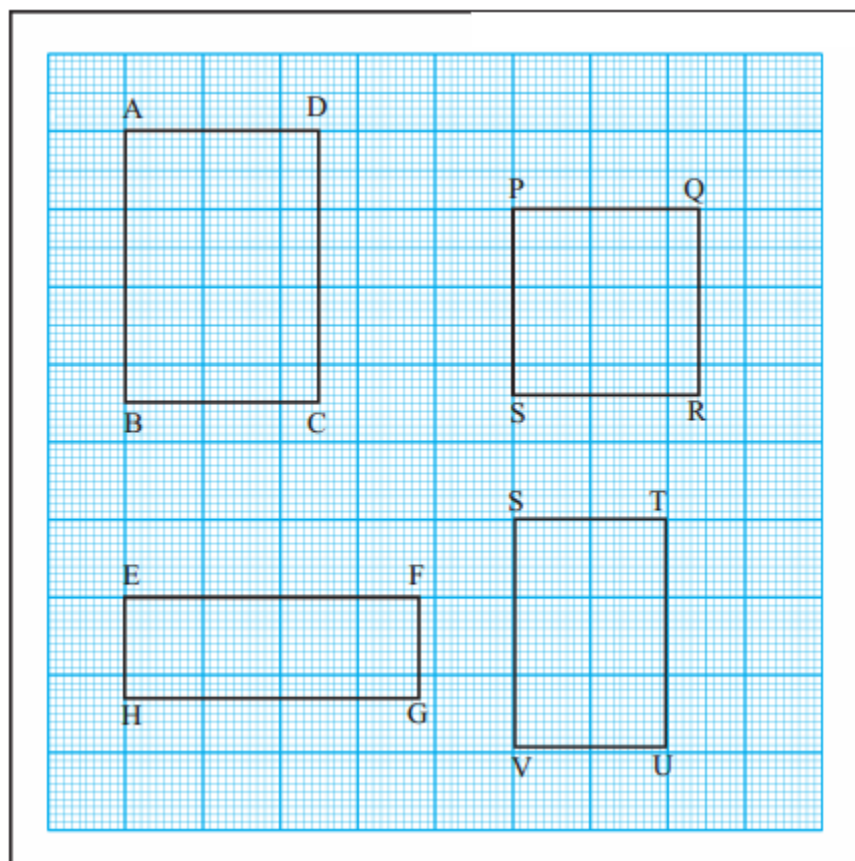
$$= 55.6$$

∴ The perimeter of a triangle

$$= 55.6 \text{ cm}$$

Question 10.

Look at the figures on the sheet of graph paper. Measure their sides with the help of the lines on the graph paper. Write the perimeter of each in the right box.



(1) Perimeter of

rectangle ABCD

= [] cm

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

(2) Perimeter of
rectangle EFGH

= [] cm

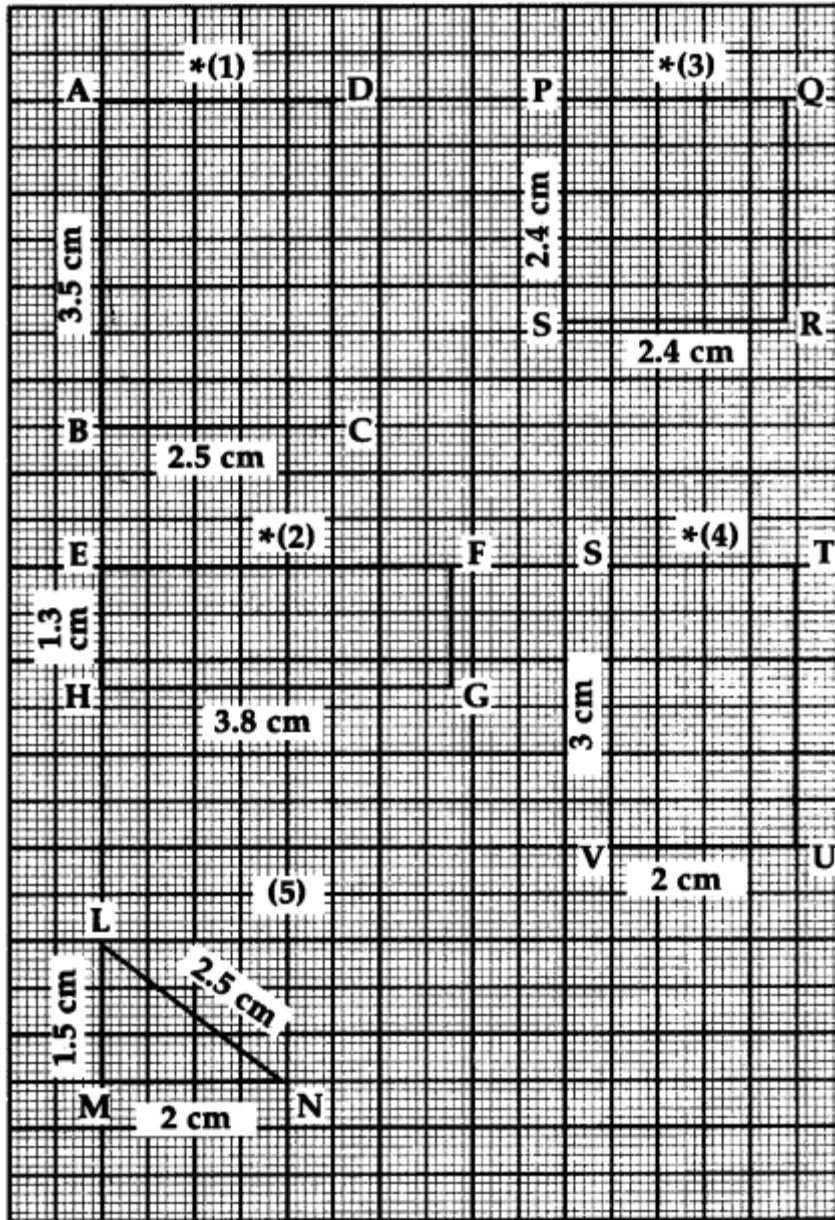
(3) Perimeter of
square PQRS

= [] cm

(4) Perimeter of
rectangle STUV

= [] cm

Solution:



(1) Perimeter of a rectangle ABCD

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 3.5 + 2 \times 2.5$$

$$= 7 + 5$$

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

$$= 12 \text{ cm}$$

$$\therefore 12 \text{ cm}$$

(2) Perimeter of a rectangle EFGH

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 3.8 + 2 \times 1.3$$

$$= 7.6 + 2.6$$

$$= 10.2 \text{ cm}$$

$$\therefore 10.2 \text{ cm}$$

(3) Perimeter of a rectangle PQRS

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 2.4 + 2 \times 2.4$$

$$= 4.8 + 4.8$$

$$= 9.6 \text{ cm}$$

$$\therefore 9.6 \text{ cm}$$

(4) Perimeter of a rectangle STUV

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 3 + 2 \times 2$$

$$= 6 + 4$$

$$= 10 \text{ cm}$$

$$\therefore 10 \text{ cm}$$

(5) Perimeter of a triangle LMN

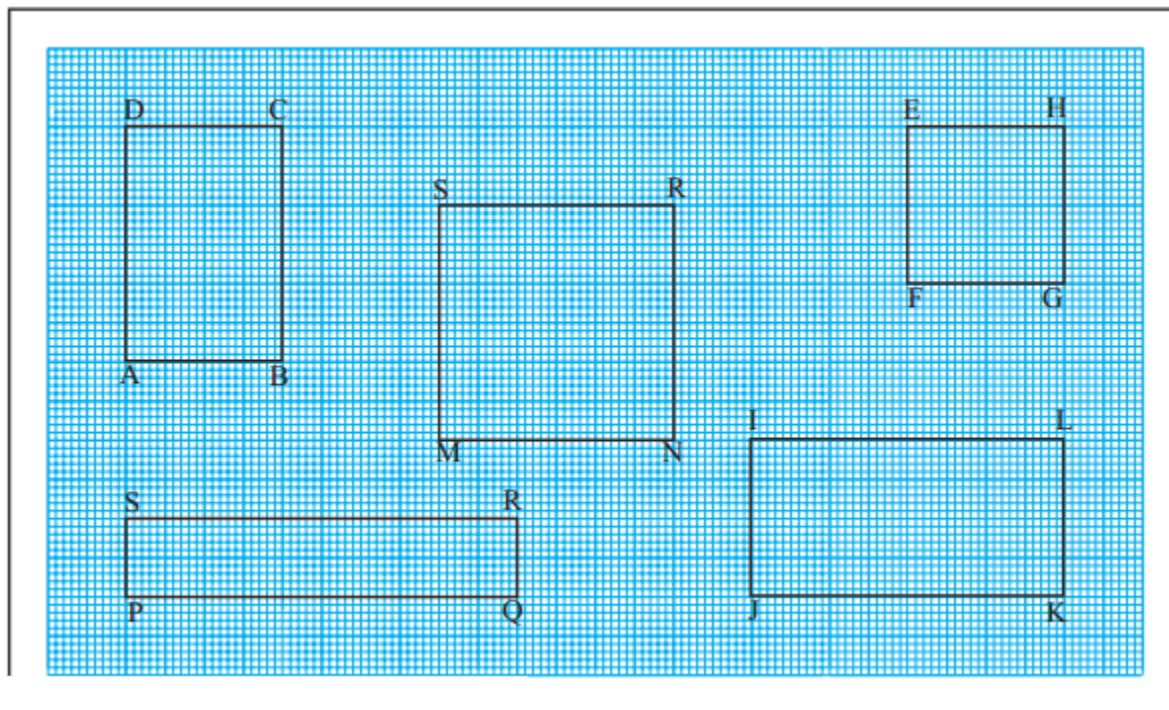
$$= 1.5 + 2.5 + 2$$

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

= 6 cm

$\therefore$ 6 cm

Area : Revision



Of the figures given above, figure ABCD has six squares of 1 cm each inside it. It means that its area is 6 sq cm.

In the same way, count the squares in each figure and write its area.

(1) Area of MNRS = [] sq cm

(2) Area of EFGH = [] sq cm

(3) Area of PQRS = [] sq cm

(4) Area of IJKL = [] sq cm

Atul : Sir, why is the unit for area written as sq cm? We measure the sides in centimetres.

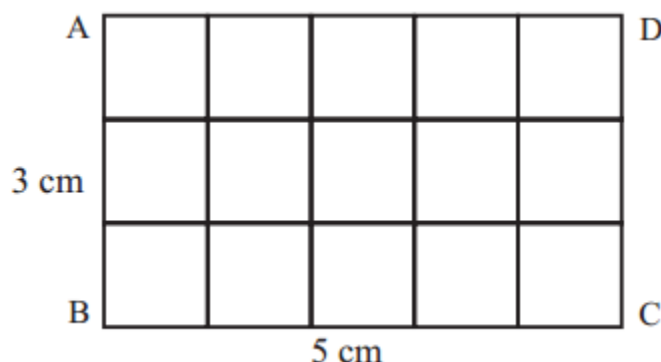
<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

Teacher : Centimetre is a standard unit of length. In order to measure area, we need a standard unit of area. For this, a square with a side 1 cm is taken as the standard unit. The area of this square is 1 square centimetre. That is why this unit is written as sq cm, in short.

To measure large areas like fields, parks and playgrounds, a square with side 1 m, that is, an area of 1 sq m, is taken as the standard unit.

To measure the areas of talukas or districts, a square with side 1 km, or 1 sq km is the standard unit used.

Formula for the area of a rectangle



(1) In the rectangle ABCD given alongside, 1 cm divisions were marked off on each side. The points on opposite sides were joined as shown in the figure. The length of the sides of each square thus created is 1 cm. Therefore, the area of each square is 1 sq cm.

In ABCD, 3 rows with 5 squares each have been created.

The number of squares in rectangle ABCD is $3 \times 5 = 15$.

Therefore, the area of rectangle ABCD is 15 sq cm.

Here, the length of the figure is 5 cm and its breadth is 3 cm.

Note that the product of 3 and 5 is 15.

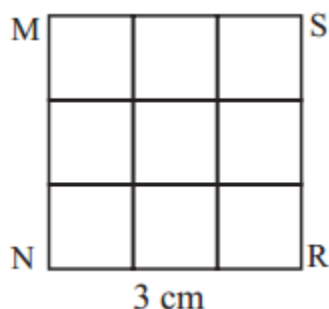
(2) In the rectangle with sides 4 cm and 2 cm, make squares of 1 sq cm each as shown above. Count the number of squares.



Note that here too, the number of squares formed are the same as the product of the length and width of the rectangle.

Therefore, *The area of a rectangle = length $\times$ breadth*

Formula for the area of a square



(1) Look at the square given alongside. The side of the square is 3 cm long. 9 squares of 1 cm each are formed within this square.

Therefore, the area of this square is 9 sq cm.

Here, there are 3 rows with 3 squares each, i.e., there are $3 \times 3 = 9$ squares.

The length of each side of the square is 3 cm.

The product of two sides of the square is $3 \times 3 = 9$.

(2) Measure the area of a square with side 5 cm, in the same way.

The answer will be 25 sq cm.

Note that $5 \times 5 = 25$

Therefore, *The area of a square = length of a side $\times$ length of a side*

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

It is not necessary to divide a square or rectangle into small squares every time you calculate their area. The advantage of a formula is that you can calculate the area simply by substituting the appropriate values.

Word problems

Example (1) What is the area of a rectangle of length 20 cm and width 15 cm?

Area of a rectangle = length $\times$ breadth

$$= 20 \times 15 = 300.$$

Therefore, the area of the rectangle is 300 sq cm.

Example (2) A wall that is 4 m long and 3 m wide has to be painted. If the labour charges are ₹ 25 per sq m, what is the cost of labour for painting this wall?

First let us calculate the area of the wall to be painted.

$$\text{Area of the wall} = \text{length of the wall} \times \text{breadth of the wall} = 4 \times 3 = 12$$

Thus, the area of the wall is 12 sq m.

Labour cost of 1 sq m is 25 rupees.

$$\text{So the labour cost for 12 sq m will be} = 12 \times 25 = 300$$

The cost of labour for painting the wall will be 300 rupees.

Example (3) What will be the area of a square with sides 15 cm?

Area of a square = length of side $\times$ length of side

$$= 15 \times 15 = 225$$

The area of the square is 225 sq cm.

Example (4) One side of a square room is 4 m. If the cost of labour for laying 1 sq m of the floor is 35 rupees, what will be the total cost of labour?

First we must find the area of the square room.

$$\text{Area of the square room} = \text{length of side} \times \text{length of side} = 4 \times 4 = 16$$

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

Therefore, the area of the square room is 16 sq m.

The labour cost of laying 1 sq m of flooring is 35 rupees.

Therefore, the cost of laying 16 sq m of flooring is $16 \times 35 = 560$ rupees.

Additional Important Questions and Answers

Question 1.

Devendra walks five rounds of a square garden everyday. If the side of the garden is 150 m, how many kilometres does Devendra walk every morning?

Solution:

Perimeter of a square garden

= 4 x one side of the garden

= 4 x 150

= 600 m

In 5 rounds walking

= 5 x 600

= 3000 m

= 3 km

3 km

Question 2.

The length of a rectangular play ground is 75 m and its breadth is 50 m. Rupali walks four rounds. How many kilometres did she walk?

Solution:

Perimeter of rectangle

= 2 x length + 2 x breadth

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

$$= 2 \times 75 + 2 \times 50$$

$$= 150 + 100$$

$$= 250 \text{ m}$$

In 4 rounds walking

$$= 4 \times 250$$

$$= 1000 \text{ m}$$

$$= 1 \text{ km}$$

$$\therefore 1 \text{ km}$$

Question 3.

Length of the rectangle is 10 cm and its breadth is 8 cm and one square is side 9 cm. Whose perimeter is more? By how much?

Solution:

Perimeter of a rectangle

$$= 2 \times \text{length} + 2 \times \text{breadth}$$

$$= 2 \times 10 + 2 \times 8$$

$$= 20 + 16$$

$$= 36 \text{ cm} \dots\dots\dots (i)$$

Perimeter of a square

$$= 4 \times \text{length of side}$$

$$= 4 \times 9$$

$$36 \text{ cm} \dots\dots\dots (ii)$$

From (i) and (ii) perimeter of both is equal.

$\therefore$ perimeter of both is equal

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>



Maharashtra Board Solutions

Class 5 Maths

Part 1

- Chapter 1- Roman Numerals (Problem Set 1)
- Chapter 2- Number Work (Problem Set 2)
- Chapter 2- Number Work (Problem Set 3)
- Chapter 2- Number Work (Problem Set 4)
- Chapter 2- Number Work (Problem Set 5)
- Chapter 2- Number Work (Problem Set 6)
- Chapter 3- Addition and Subtraction (Problem Set 7)
- Chapter 3- Addition and Subtraction (Problem Set 8)
- Chapter 3- Addition and Subtraction (Problem Set 9)
- Chapter 3- Addition and Subtraction (Problem Set 10)
- Chapter 3- Addition and Subtraction (Problem Set 11)
- Chapter 3- Addition and Subtraction (Problem Set 12)
- Chapter 3- Addition and Subtraction (Problem Set 13)
- Chapter 4- Multiplication and Division (Problem Set 14)
- Chapter 4- Multiplication and Division (Problem Set 15)
- Chapter 4- Multiplication and Division (Problem Set 16)
- Chapter 5- Fractions (Problem Set 17)
- Chapter 5- Fractions (Problem Set 18)
- Chapter 5- Fractions (Problem Set 19)
- Chapter 5- Fractions (Problem Set 20)
- Chapter 5- Fractions (Problem Set 21)

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

- Chapter 5- Fractions (Problem Set 22)
- Chapter 5- Fractions (Problem Set 23)
- Chapter 6- Angles (Problem Set 24)
- Chapter 6- Angles (Problem Set 25)
- Chapter 6- Angles (Problem Set 26)
- Chapter 6- Angles (Problem Set 27)
- Chapter 7- Circles (Problem Set 28)
- Chapter 7- Circles (Problem Set 29)
- Chapter 7- Circles (Problem Set 30)
- Chapter 7- Circles (Problem Set 31)
- Chapter 8- Multiples and Factors (Problem Set 34)
- Chapter 8- Multiples and Factors (Problem Set 35)
- Chapter 9- Decimal Fractions (Problem Set 36)
- Chapter 9- Decimal Fractions (Problem Set 37)
- Chapter 9- Decimal Fractions (Problem Set 38)
- Chapter 9- Decimal Fractions (Problem Set 39)
- Chapter 9- Decimal Fractions (Problem Set 40)
- Chapter 9- Decimal Fractions (Problem Set 41)
- Chapter 9- Decimal Fractions (Problem Set 42)
- Chapter 10- Measuring Time (Problem Set 43)

Part 2.

- Chapter 8- Multiples and Factors (Problem Set 32)
- Chapter 8- Multiples and Factors (Problem Set 33)
- Chapter 10- Measuring Time (Problem Set 44)
- Chapter 10- Measuring Time (Problem Set 45)
- Chapter 11- Problems on Measurement (Problem Set 46)

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

- Chapter 11- Problems on Measurement (Problem Set 47)
- Chapter 12- Perimeter and Area (Problem Set 48)
- Chapter 12- Perimeter and Area (Problem Set 49)
- Chapter 12- Perimeter and Area (Problem Set 50)
- Chapter 13- Three Dimensional Objects and Nets (Problem Set 51)
- Chapter 14- Pictographs (Problem Set 52)
- Chapter 15- Patterns (Problem Set 53)
- Chapter 16- Preparation for Algebra (Problem Set 54)
- Chapter 16- Preparation for Algebra (Problem Set 55)
- Chapter 16- Preparation for Algebra (Problem Set 56)

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

About About Maharashtra State Board (MSBSHSE)

The Maharashtra State Board of Secondary and Higher Secondary Education or MSBSHSE (Marathi: महाराष्ट्र राज्य माध्यमिक आणि उच्च माध्यमिक शिक्षण मंडळ), is an **autonomous and statutory body established in 1965**. The board was amended in the year 1977 under the provisions of the Maharashtra Act No. 41 of 1965.

The Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE), Pune is an independent body of the Maharashtra Government. There are more than 1.4 million students that appear in the examination every year. The Maha State Board conducts the board examination twice a year. This board conducts the examination for SSC and HSC.

The Maharashtra government established the Maharashtra State Bureau of Textbook Production and Curriculum Research, also commonly referred to as Ebalbharati, in 1967 to take up the responsibility of providing quality textbooks to students from all classes studying under the Maharashtra State Board. MSBHSE prepares and updates the curriculum to provide holistic development for students. It is designed to tackle the difficulty in understanding the concepts with simple language with simple illustrations. Every year around 10 lakh students are enrolled in schools that are affiliated with the Maharashtra State Board.

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

FAQs

Where do I get the Maharashtra State Board Books PDF For free download?

You can download the Maharashtra State Board Books from the eBalbharti official website, i.e. cart.ebalbharati.in or from this article.

Add image

How to Download Maharashtra State Board Books?

Students can get the Maharashtra Books for primary, secondary, and senior secondary classes from here. You can view or download the Maharashtra State Board Books from this page or from the official website for free of cost. Students can follow the detailed steps below to visit the official website and download the e-books for all subjects or a specific subject in different mediums.

Step 1: Visit the official website ebalbharati.in

Step 2: On the top of the screen, select "Download PDF textbooks"

Step 3: From the "Classes" section, select your class.

Step 4: From "Medium", select the medium suitable to you.

Step 5: All Maharashtra board books for class 11th will now be displayed on the right side.

Step 6: Click on the "Download" option to download the PDF book.

Who developed the Maharashtra State board books?

As of now, the MSCERT and Balbharti are responsible for the syllabus and textbooks of Classes 1 to 8, while Classes 9 and 10 are under the Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE).

How many state boards are there in Maharashtra?

The Maharashtra State Board of Secondary & Higher Secondary Education, conducts the HSC and SSC Examinations in the state of Maharashtra through its nine Divisional Boards located at Pune, Mumbai, Aurangabad, Nasik, Kolhapur, Amravati, Latur, Nagpur and Ratnagiri.

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>

About IndCareer

IndCareer.com is a leading developer of online career guidance resources for the Indian marketplace. Established in 2007, IndCareer.com is currently used by over thousands of institutions across India, including schools, employment agencies, libraries, colleges and universities.

IndCareer.com is designed to assist you in making the right career decision - a decision that meets your unique interests and personality.

For any clarifications or questions you can write to **info@indcareer.com**

Postal Address

IndCareer.com
52, Shilpa Nagar,
Somalwada
Nagpur - 440015
Maharashtra, India

WhatsApp: +91 9561 204 888

Website: <https://www.indcareer.com>

<https://www.indcareer.com/schools/maharashtra-board-solutions-class-5-maths-problem-set-49-part-2-chapter-12-perimeter-and-area/>