

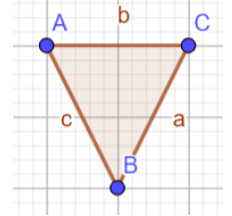
Perimeter and Area

Class VI Mathematics – Worksheets

PERIMETER AND AREA

WORKSHEET-1

Section A: MCQs (PART-1) ($10 \times 1 = 10$ marks)



1. Perimeter of given fig. is...

- a) $a + b + c$ b) abc c) $ab+c$ d) $a+bc$

2. Perimeter of a square of side 9 cm is

- a) 81 cm b) 36 cm c) 26 cm d) 18 cm

3. The perimeter of a rectangular notebook is 70 cm, and its breadth is 14 cm. What is its length.

- a) 5 cm b) 21 cm c) 28 cm d) None of these

4. Diksha runs along the square track of side 120 m. Find the distance covered in 4 rounds.

- a) 480 m b) 960 m c) 1920 m d) None of these

5. The area of square whose perimeter is 16 cm is :

- a) 8cm^2 b) 4cm^2 c) 64cm^2 d) 16cm^2

6. A triangle has perimeter of 20 cm if two of its sides are 8 cm and 6 cm what is the length of the third side.

- a) 4 cm b) 5 cm c) 6 cm d) 7 cm

7. Find the cost of flooring a room at Rs 25 per m^2 whose area is 100 m^2 .

- a) Rs 2500 b) Rs 250 c) Rs 500 d) Rs 5000

8. Regular polygon has all sides equal and all angles _____.

- a) Different b) Unequal c) Equal d) None of these

9. Perimeter of regular hexagon :

- a) $\text{side} \times \text{side}$ b) $5 \times \text{side}$ c) $6 \times \text{side}$ d) None of these

10. What do you call the total boundary length of a closed figure?

- (a) Area (b) Perimeter (c) Volume (d) None of these

MCQs (PART-2) ($10 \times 1 = 10$ marks)

11. The side of a square is 5 cm. If its side is doubled, then its new perimeter is

- (a) 40 cm (b) 36 cm (c) 60 cm (d) 24 cm

12. The area of a square is 121 sq. cm. What is its perimeter?

- (a) 10 cm (b) 400 cm (c) 44 cm (d) 100 cm

13. Which figure has a larger perimeter?

- (a) A square of side 5 cm
(b) A rectangle of 6 cm length and 4 cm breadth
(c) Both are equal
(d) Cannot be determined

14. The perimeter of a regular pentagon is 25 cm. What is the length of one side?

- a) 6 cm b) 3 cm c) 5 cm d) 4 cm

15. Perimeter of a square of side 9 cm is....

- a) 81 cm b) 36 cm c) 26 cm d) 18 cm

16. A square and a rectangle have the same perimeter of 32 cm. The rectangle has a length of 10 cm. What is the difference between their areas?

- a. 8 cm^2 b. 12 cm^2 c. 16 cm^2 d. 20 cm^2

17. A rectangular playground measures $40 \text{ m} \times 25 \text{ m}$. A path of area 100 m^2 is made inside the playground. What is the remaining area available for playing?

- a. 800 m^2 b. 850 m^2 c. 900 m^2 d. 1000 m^2

18. Which of the following figures has the greatest perimeter if each has an area of 36 cm^2 ?

- a. Square of side 6 cm b. Rectangle of $9 \text{ cm} \times 4 \text{ cm}$
c. Rectangle of $12 \text{ cm} \times 3 \text{ cm}$ d. All have the same perimeter

19. A wire of length 48 cm is bent to form a regular hexagon. What will be the length of each side?

- a. 6 cm b. 7 cm c. 8 cm d. 9 cm

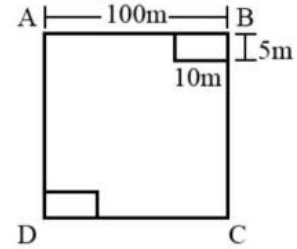
20. Which statement is always true?

- a. Figures with equal perimeter always have equal area.
b. Figures with equal area always have equal perimeter.
c. Two figures can have the same area but different perimeters.
d. The perimeter of a figure depends on its area only.

WORKSHEET-2

Section B: Short Answer ($10 \times 2 = 20$ marks)

1. A square-shaped park ABCD of side 100m has two equal flower beds, each of size $10\text{m} \times 5\text{m}$. Find Length of the boundary of remaining park.



rectangular
the

2. What is a curve? Give two examples by drawing.

3. A picture frame is 20cm long and 15cm wide, find the length of the ribbon needed to decorate its boundary.

4. Find the perimeter of a rectangle with length 8 cm and breadth 5 cm.

5. A rectangular field has a length of 50m and a breadth of 30m. If a path 2m wide is built around the field what is the area of the path?

6. Rani wants to put lace all around a rectangular tablecloth that is 3 m long and 2 m wide. Find the length of the lace required.

7. Reena and Rahul are comparing two photo frames. Reena's frame is a square with a side length of 25 cm. Rahul's frame is a rectangle with dimensions 30 cm by 20 cm. Whose frame has a larger area, and what is the difference in their areas?

8. A piece of string is 40 cm long. What will be the length of each side if the string is used to form a square?

9. A wire of length 36 cm is bent into the shape of an scalene triangle. Write any three possible combinations of length of sides of the triangle?

10. The perimeter of a square is 64 cm, find its area.

Section C: Short Answer ($6 \times 3 = 18$ marks)

11. Find the width of a rectangle whose length is 12 cm and perimeter is 30 cm..

12. The area of a rectangular plot of land is 300 square meters. If the length of the plot is 20 meters, calculate its perimeter.

13. Find the area of a rectangle of length 12 cm and breadth 7 cm.

14. A square park 'P1' has side 20 m. A rectangular park 'P2' has length 25 m and width 16 m. Which park has the greater area?

15. Find the perimeter of equilateral triangle whose one side is 13 cm.

16. A rectangular garden is 40 m long and 15 m wide. A gardener charges ₹12 per m^2 for laying grass. Find the total charge.

Section D: Long Answer ($4 \times 5 = 20$ marks)

17. Two rectangular parks have the same area of 300 m^2 . The first park has a length of 25m. Find the width of both parks if the second park is 30m long. Which park has a larger perimeter?

18. A rectangular hall is 18 m long and 12 m wide. Four workers can tile 72 m^2 in one day. How many days will they take to tile the hall?

19. A rectangular field measuring $50 \text{ m} \times 40 \text{ m}$ is to be fenced. Labourers charge ₹ 6 per metre for installation and fencing material costs ₹10 per metre. Find the total cost.

20. The floor of a room is 8m long and 6m wide , each tile used is 40cm× 40cm. How many tiles are required to cover the floor completely

Case Study Based Questions ($2 \times 4 = 8$ marks)

21. A local community wants to fence a rectangular public park that is **150 m long and 120 m wide**. The contractor for the project charges **₹40 per metre** for the fencing material and labour. To budget for the project, the community leaders must first calculate the perimeter of the park.

1. What are the dimensions of the rectangular park?
2. Calculate the perimeter of the public park.
3. What is the rate charged per metre for fencing?
4. What is the total cost required to fence the entire park?

22. Charan is reviewing the floor plan for his new home on a **35 ft × 30 ft rectangular plot**. His plan includes a master bedroom (15 ft × 15 ft), a kitchen (15 ft × 12 ft), and a small bedroom (15 ft × 12 ft). He also has a hall that measures **20 ft by 12 ft**. Charan wants to ensure the sum of the areas of his rooms and utilities fits within the total plot area.

1. What is the total area of Charan's rectangular plot?
2. What is the area of the master bedroom in Charan's house?
3. What is the area of the small bedroom ?
4. Which has more space kitchen or small bedroom ?

Self Assessment:

I understood all the concepts

☐ Yes

☐ No

I need more practice

☐ Yes

☐ No

Name of Concepts having doubts/Not Cleared: _____

Parent's Assessment:

My ward understood all the concepts

☐ Yes

☐ No

He/She need more practice

☐ Yes

☐ No

Name of Concepts having doubts/Not Cleared: _____

Signature of Parent:

Teacher's Assessment

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Answers of Worksheet 1:

Q	1	2	3	4	5	6	7	8	9	10	11	12	13
A	a	b	b	c	d	c	a	c	c	b	a	a	c
Q	14	15	16	17	18	19	20						
A	c	B	a	c	c	c	c						

Answers of Worksheet 2:

Q.No.	1	2	3	4	5	6	7	8
ANS	400		70m	26cm	336m ²	10m	Reena ,25m ²	10cm
Q.No.	9	10	11	12	13	14	15	16
ANS		256cm ²	3cm	70m	84 cm ²	equal	39cm	7200rs
Q.No.	17	18	19	20	21	22		
ANS	12m, 10m 2nd	3days	2880	300	150m, 120m 540m ₹40 ₹21600	1050ft ² 225ft ² 180ft ² equal		