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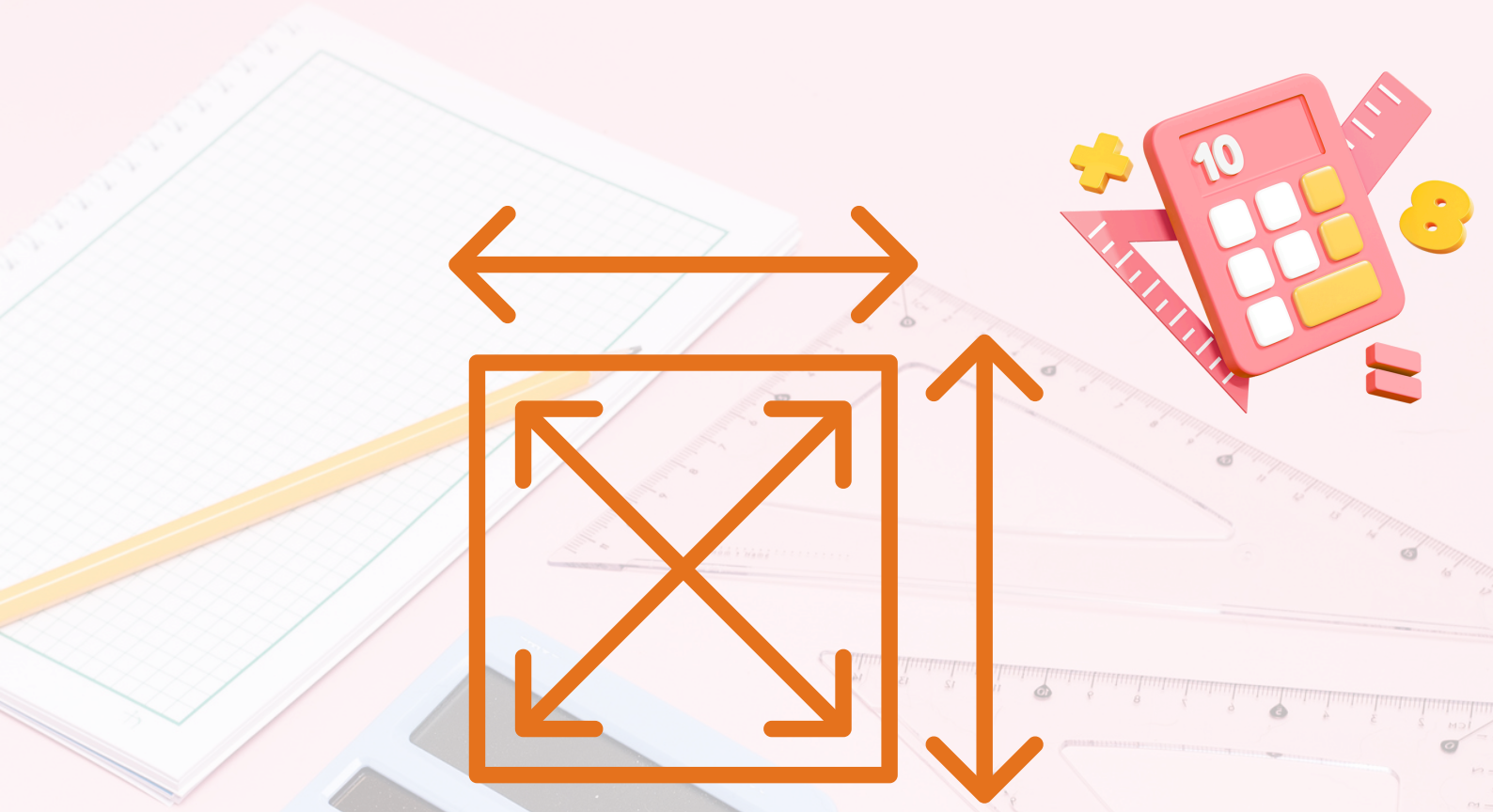
BELIEVE YOURSELF

PERIMETER & AREA

Worksheet 2



THE ONLY FAILURE IS QUITTING

1. A man constructed a room. The area of four walls of the room is 57.4 m^2. If the room is 5 m long and 3.2 m wide, find the volume of the room.

A. 74 m^2 B. 42 m^2 C. 56 m^2 D. 65 m^2

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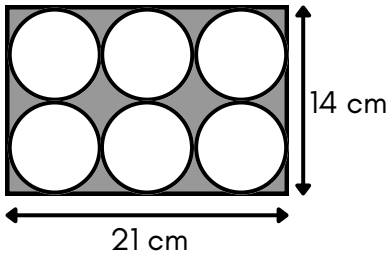
2. Sam cut out 6 identical circles from a rectangular piece of paper. Find the shaded area. (Take $\pi = \frac{22}{7}$)



A. 62 cm^2 B. 294 cm^2 C. 63 cm^2 D. 63 cm^2

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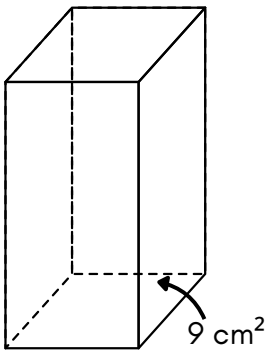
3. The figure shows a rectangular block of wood which is $\frac{2}{5}$ m long. It has a square base of area 9 cm^2.

A. What is the greatest number of 2 cm cubes that can be cut from it?

B. What is the volume of the block of wood left?



	(a)	**(b)**
A.	20	200 cm^3
B.	140	200 cm^3
C.	154	100 cm^3
D.	159	200 cm^3

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4. The two adjacent sides of a rectangle are $5x^2 - 3y^2$ and $x^2 + 2xy$. Find the perimeter.

A. $12x^2 + 5xy + 9y^2$ B. $12x^2 - 6y^2 + 4xy$ C. $7x^2 - 3y^2 + 4xy$ D. $8x^2 - 8y^2 + 3xy$

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scroll down for Answer key

5. A rectangular garden 200 m long and 150 m wide has a path all around it, on the inner side, having a width of 3 m. In the centre of this plot, there is a circular pond of radius 7 m. What area of the land is left for the lawn and the flower beds?

A. 27,936 sq. m B. 27,782 sq. m C. 27,682 sq. m D. 28,582 sq.m

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6. The outer dimensions of a closed box are 10 cm by 8 cm by 7 cm. Thickness of the wood is 1 cm. Find the total cost of wood required to make box, if 1 cm^3 of wood costs ₹ 2.00.

A. ₹ 320 B. ₹ 1240 C. ₹ 640 D. ₹ 240

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7. Find P + Q - R

(i) If a rectangle of length 44 cm is rolled along its length to form a cylinder, the radius of cylinder is **____P____** cm.

(ii) The cost of plastering the walls of a cuboidal room of dimensions 12 m x 10 m x 4 m at the rate of ₹ 25 per sq. m is ₹**____Q____.**

(iii) The volume of a cuboid of dimensions 14 m x 7 m x 12 m is **____R____** m^3.

A. 11776 B. 7362 C. 16162 D. 3231

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8. If the height of a cylinder becomes $\frac{1}{2}$ of the original height and the radius is doubled, then volume of cylinder becomes_____of its original volume.

A. 2 times B. $\frac{1}{2}$ times C. $\frac{1}{4}$ times D. 3 times.

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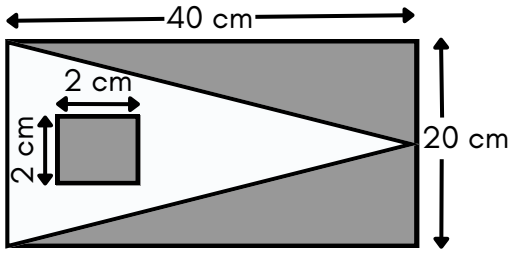
9. Find the total area of shaded region in the given figure.



A. 400 cm^2 B. 404 cm^2 C. 396 cm^2 D. 275 cm^2

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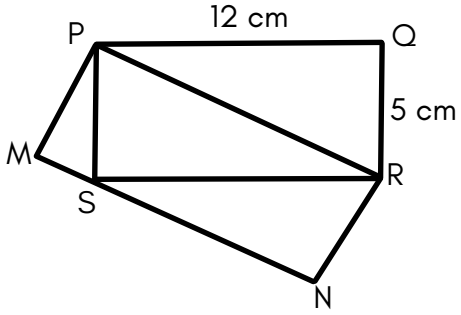
scroll down for Answer key

10. PQRS is a rectangle of dimensions 12 cm and 5 cm. PMNR is a rectangle drawn in such a way that the diagonal PR of the first rectangle is one of its sides and side opposite to it is touching the first rectangle at S as shown in figure. What is the ratio of the area of rectangle PQRS to that of PMNR?



A. 3 : 1 B. 2 : 3 C. 1 : 1 D. 5 : 4

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Answer Key

1. B
2. C
3. D
4. A
5. A
6. B
7. C
8. C
9. A
10. A