

**HOLIDAYS HOMEWORK**  
**CLASS-VIII (MATHEMATICS)**

1. Find the surface area of a cube which is open at the top and whose edge is 11cm.
2. A polyhedron has 30 edges and 20 vertices. How many faces does this polyhedron has?
3. Find the area of a trapezium with base 15cm and height 8 cm, if the side parallel to the given base is 9cm long.
4. Two right circular cylinders of equal volume are such that their radii are in the ratio 2: 3. Find the ratio of their heights.
5. The outer diameter of a metallic pipe tube is 14 cm & thickness of the tube is 1 cm. Find the weight of 2 m long tube if the density of the metal is  $7 \text{ gm/cm}^3$ .
6. An iron pipe 20 cm long has an external diameter equal to 25 cm. If the thickness of the pipe is 1 cm, find the total surface area of the pipe.
7. The dimensions of a box are 22cm X 11cm X 3cm. it is to be covered with a brown paper. If each box requires  $164\text{cm}^2$  of more paper for folding. How much paper is required to wrap 85 such boxes?
8. The residents of a society decided to paint the walls of a hall of cancer detection centre in their premises. The floor of a cubical hall has a perimeter equal to 260m & height 6m
  - a) Find the cost of painting or its four walls (including doors) at the rate of Rs 9 per  $\text{m}^2$ .
  - b) If 50 persons contributed in the cost of painting of four walls, then what is the amount contributed by each person?
9. A river 3m deep & 40 m wide is flowing at the rate of 2km per hour. How much water will fall into the sea in a minute?
10. A godown measures 40m X 25m X 10m. Find the maximum number of wooden crates each measuring 1.5m X 1.25m x 0.5m that can be stored in a godown.
11. The diagonals of a rhombus are in the ratio 3: 4. If the perimeter is 40cm, find the lengths of the sides & diagonals of the rhombus.
12. ABCD is a rhombus whose diagonals intersect at O. If AB = 10cm, diagonal BD = 16 cm, find the ratio of AC and BD.
13. The curved surface area of cylindrical pillar is  $264\text{m}^2$  & its volume is  $924\text{m}^3$ . Find the diameter and height of the pillar.

14. A well of diameter 14 m dug 28 m deep. The earth which is so dug out is spread evenly on a rectangular platform 44m long & 28m broad. Find the raised height of the platform.
15. The lengths of the parallel sides of a trapezium are in the ratio 4: 7. If the height of the trapezium is 140 m & its area is 385 sq. metre, find the length of its parallel sides.
16. Find the least number must be added to 5607 to make the sum a perfect square?
17. Find the greatest number of six digits which is a perfect square?
18. Find the square root of 5 up to three decimal places.
19. Find the cube root of 32768 by the method of estimation.
20. A train 360 m long is running at a speed of 45km/hr. What time will it takes to cross a 140 m long bridge.
21. Arjun can drive a car continuously at a speed of 40km/hr. Draw a time distance graph for this situation.
22. Write a Pythagorean triplet whose one member is 12.
23. If x and y vary inversely and  $y = 45$ . Find x when constant of variation is 9.
24. Plot (2, 2), (4, 4), (6, 6). Join these points. Do they lie on the line passing through the origin?
25. Draw a line segment AB of length 7cm & find a point P on it such that  $AP = \frac{2}{3} PB$ .

# PROJECT

**Make a project on any one:**

- a) Use of Mathematics in different fields
- b) Value of Mathematics in your life