

# GEOMETRY

1. An equilateral triangle was cut from its three vertices to form a regular hexagon. What is the percentage of area wasted ?
2. The ratio of radii of two right circular cylinder is 6:7 and their heights are in ratio 5:9. What is the ratio of their respective curved surface area ?
3. The ratio of heights of two circular cone is 1:2. And the perimeter of the base are in ratio of 3:4. Find ratio of their volume?
4. Width of a rectangle is 10mtrs and their area is 150mtrs<sup>2</sup>. If the length of rectangle is increased then its new area will be  $(11/3)$  times of original area. What is the new perimeter of the rectangle?
5. Volume of two cones are in ratio 1:10 and their radii are in ratio 1:2. What is the ratio of their vertical height?
6. Four walls and the ceiling of a room are to be painted of length 25ft ; breadth 12ft. and height 10ft. Painter A can paint 200sqft in 5 days, Painter B can paint 250sqft in 2 days. If A and B work together in how many days do they finish the job?
7. If area of triangle is 216cm<sup>2</sup>. If respective ratio between height and base is 4:3. Then what is the perimeter of square whose sides is 1.5 times base of triangle ?
8. Monthly rent for a shop of dimensions 18 feet  $\times$  22 feet is 2244. What is the annual rent of per square feet of shop.
9. Edges of cuboid are in the ratio 1:2:3 and its surface area is 88 cm<sup>2</sup>. Find the volume of cuboid?
10. If each sides of a square is increased by 25%. Then find the percentage change in area?
11. If each edge of a cube is increased by 15%. Then percentage change in the volume is ?



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12. Rectangular paper of 44 cm long and 6 cm width is rolled to form a cylinder of height equal to width of paper. Find radius of base of cylinder?

13. A towel when bleached was found to have lost 20% of its length and 10% of its breadth. What is percentage change in area?

14. Perimeter of circular field and square field are equal. If area of square field is 12100. What is area of circular field?

15. An error of 2% in excess is made while measuring the sides of a square. The percentage of error in the calculated area of the square is :

16. The ratio between the perimeter and breadth of a rectangle is 5:1. If the area of rectangle is  $216 \text{ sq. cm}$ , what is the length of the rectangle?

17. A rectangular park of 60m long and 40m wide has two concrete crossroads running in the middle of the park and rest of park has been used as lawn. If the area of lawn is  $2109 \text{ sq. mtrs}$ , then what is the width of the road?



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18. A rectangular field is to be fenced on three sides leaving a side of 20ft uncovered. If the area of field is 680sqft, how many ft of fencing will be required?

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