

# G.S.PUBLIC Sr. Sec. SCHOOL

Subject - Maths

Holiday Homework

CLASS- 9<sup>th</sup>

- The sides of a triangle are 8cm, 15cm and 17cm. find its perimeter and its area. Also find the length of the altitude drawn on the side with length 17cm.
  - The perimeter of the triangle is 44cm. if its sides are in the ratio 9:7:6 find its area.
  - The base of a right angled triangle is 5cm and hypotenuse is 13cm. Find its area.
  - Find the area of quadrilateral ABCD whose sides are 9m, 40m, 28m and 15m. The angle between the first two sides is a right angle.
  - Find the area of a trapezium whose parallel sides measure 60cm and 77cm and non-parallel sides are 25cm and 26cm.
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- Three cubes each of 5cm edge are joined end to end. Find the surface area of the resulting Cuboid (350 sqcm)
  - Two cubes of side 6 cm each joined end to end. Find the surface area of the resulting cuboid. (360cm<sup>2</sup>)
  - The radii of two right circular cylinders are in the ratio 2:3 and their heights are in the ratio 5:4 Calculate the ratio of their curved surface area (5:6)
  - How many metres of cloth 5m wide will be required to make a conical tent, the radius of whose base 7m and height 24m? (110m)
  - The outer and inner diameters of a hemispherical bowl are 17cm and 15cm find the cost of polishing it over at 25 paise percm<sup>2</sup> (Rs 25.14)
  - A river 2m deep and 30m wide is flowing at the rate of 2km per hour. How much water will fall into the sea in a minute (2 000m<sup>3</sup>)
  - The volume of a cube is 125cm<sup>3</sup>. Find its surface area (150cm<sup>2</sup>)
  - Find the length of the longest pole that can be put in a room of dimensions 6m x 6m x 3m (9m)
  - The surface area of a sphere is 5544cm<sup>2</sup>, find its diameter. (42 cm)
  - The sum of the radius of the base and height of a cylinder is 37m. If the total surface area of the Solid cylinder is 1628m<sup>2</sup>, find the volume of cylinder (4620m<sup>3</sup>)
  - A hemispherical bowl is made of steel 0.25cm thick .The inner radius of the bowl is 5 cm. Find the outer curved surface area of the bowl. (173.25 cm<sup>2</sup>)
  - The ratio of the CSA to the TSA of a right circular cylinder is 1: 3. Find the volume of the cylinder If its T S A is 1848 cm<sup>2</sup> (4312 cm<sup>3</sup>)
  - The diameter of a roller, 120cm long is 84cm. It takes 500 complete revolutions to level a Playground. Find the cost of leveling it at the rate of Rs 25 per sq metre. (Rs 39,600)
  - The height of a cone is 15cm. If its volume is 1570 cm<sup>3</sup>, find the radius of the base. ( $\pi = 3.14$ ) (r = 10cm)
  - Find the surface area of a sphere whose volume is 99/7 cm<sup>3</sup> (r = 1.5cm, SA= 198/7 cm<sup>2</sup>)
  - The total surface area of a solid hemisphere is 1848cm<sup>2</sup>. Find the volume of the hemisphere. (5749.3 cm<sup>3</sup>)
  - A hemispherical bowl of internal radius 9cm is full of a liquid. This liquid is to be filled into Small cylindrical bottles of diameter 3cm and height 4cm each. Find the minimum number Of bottles required to empty the bowl (54)
  - Curved surface area of a cylinder is 4400cm<sup>2</sup> the circumference of its base is 110 cm.Find the height of the cylinder (40 cm)
  - Base circumference of a cylinder is 132 m and its height is 2m. Find its curved surface area (264m<sup>2</sup>)
  - Three solid spheres of iron whose diameters are 2cm, 12cm and 16cm respectively are melted Into sphere. Find the radius of the new sphere (9 cm)
  - The radius and height of a cylinder are in the ratio 2:3. If the volume of a cylinder is 1617cm<sup>3</sup> Find its radius and height (7 cm, 10.5 cm)
  - A solid cube of side 12 cm is cut into 8 cubes of equal volumes. Find the side of new cube (6 cm)
  - The paint in a certain container is sufficient to paint an area equal to 9.375 sqm. How many bricks of dimensions 22.5cm x 10cm x 7.5cm container can be painted out of this? (100)
  - Find the total surface area of the cone whose base radius is 8cm and sum of base radius and slant height is 21cm (528 sqcm)
  - The height of a rectangular room is 2.5m. The cost of painting its four walls at the rate of Rs. 20/m<sup>2</sup> is Rs.2500. Find the perimeter of the room (50m)
  - A cone and cylinder are having equal base radius. Find the ratio of the heights of cone and cylinder if their volume is equal