

**Holiday Home work**  
**KV MATI SHIFT -1**  
**CLASS IX**  
**Session 2024-25**

**Q-1** Two cubes of edge 6 cm are joined to form a cuboid. Find the total surface area of the cuboid.

**Q-2** If in a cylinder, radius is doubled and height is halved, then find its curved surface area.

**Q-3** The radii of two cylinders of the same height are in the ratio 4 :5, then find the ratio of their volumes.

**Q-4** How many balls, each of radius 2 cm can be made from a solid sphere of lead of radius 8 cm

**Q-5** A cone is 8.4 cm high and the radius of its base is 2.1 cm. It is melted and recast into a sphere. Find the radius of the sphere.

**Q-6** In a cylinder, if radius is halved and height is doubled, then find the volume with respect to original volume.

**Q-7** Calculate the surface area of a hemispherical dome of a temple with radius 14 m to be whitewashed from outside

**Q-8** Find the Area of a Triangle whose two sides are 18 cm and 10 cm, respectively and the perimeter is 42 cm.

**Q-9** A triangular park has sides 120 m, 80 m and 50 m. A gardener has to put a fence all around it and also plant grass inside. How much area does he need to plant?

**Q-10** The sides of a triangle are in the ratio of 12: 17: 25 and its perimeter is 540 cm. Find its area.

**Q-11** Find the area of a triangle whose sides are 4.5 cm and 10 cm and perimeter 20.5 cm.

**Q-12** What is the area of a triangle whose sides are 9 cm, 12 cm and 15 cm?

**Q-13** The perimeter of a right triangle is 300m. If its sides are in the ratio 3 : 5 : 7. Find the area of the triangle.

**Q-14** The sides of a triangle are 11 m, 60 m and 61 m. What is the altitude to the smallest side?

**Make portfolio file with set format**

**Make a project file choose the following one**

**Topic 1-**

**Conduct a survey of a group of students and represent it graphically- height, weight, number of family members, pocket money, etc.**

**Table of Contents**

**1. Introduction**

**2. Procedure**

**(a) Data Collection: Using questionnaire.**

**(b) Data Tabulation: Using tally bars to tabulate data and then constructing numerical data tables.**

**(c) Data Presentation: Presenting data using bar charts, histograms and frequency polygons.**

**(d) Data Processing: Finding mean, median and mode.**

**3. Observations.**

**4. Conclusion (Project Report): Analysis of data collected.**

**5. Further study: Applying skills learnt to other situations.**

**Topic 2- Planning delivery routes for a postman/milkman.**

**Planning delivery route for a postman.**

**Table of Contents**

**1. Introduction.**

**4. Decision.**

**2. Planning the route (option 1 and option 2).**

**5. Further study.**

**3. Comparison.**