INDIAN SCHOOL DARSAIT
DEPARTMENT OF MATHEMATICS

Subject : Mathematics Topic : Heron's Formula Date of Worksheet : 25-1-2018
Worksheet No: 14

Resource Person: Mrs. Anu Likson Date : _____

Name of the Student :_____ Class &Division : IX ..... Roll Number : __

	Section A (Basic Skill)	**Marks**
	Simplify	
1.	Find the area of a triangle whose base is 20cm and altitude is 8cm.	1
2.	Find the perimeter of the rectangle with length as 12cm and breadth as 9cm.	1
3.	The area of a square is 225cm^2. Find the side of the square.	1
4.	The perimeter of an equilateral triangle is 12cm and its altitude is 3cm.Find its area	1
5.	Find the area of a circle whose base diameter is 18cm.	1
	Section B Answer the following questions:	
1.	A cuboid has total surface area of 372cm^2 and its lateral surface area is 180cm^2. Find the area of its base.	2
2.	Shamali needs to cover a wooden block with a chart paper for her project. If the length, breadth and height of the box are 80cm, 40cm and 20cm respectively, how many square sheets of paper of side 40cm would she require?	3
3.	The radius of a cylindrical garden roller is 70 cm and its length is 2 m. How much area will it cover in 5 revolutions?	3
4.	There are two cones. The curves surface area of one is twice that of the other. The slant height of the latter is twice that of the former. Find the ratio of their radii.	3
5.	A right triangle, in which the sides containing the right angle are 6.3 cm and 10cm long, is made to turn around on the longer side. Find the volume of solid thus generated.	3
6.	Find the mass of a hollow sphere of copper having internal and external diameters of 9 cm and 10 cm respectively, given 1 cm^3 of copper has a mass of 8.82 g.	3
7.	A cylindrical container is to be made of tin sheet. The height of the container is 1 m and its diameter is 70 cm. If the container is open at the top and the sheet costs Rs . 300 per m^2, find the cost of the tin sheet for making the container.	4
8.	A hemispherical dome whose circumference of the base is 17.6 m, needs to be painted. Find the cost of painting it, given the rate of painting is Rs.5 per 100 cm^2.	4
9.	The volume of cuboid is 1440 cm^3. Its height is 10 cm and the base is a square. Find the side of the square.	4

10.	How many meters of cloth 5 m wide will be required to make a conical tent, the radius of whose base is 7 m and whose height is 24 m?	4
	Section C	
1.	A cone, a hemisphere and a cylinder stand on equal bases and have same height. Show that their volumes are in the ratio 1 : 2 : 3.	3
2.	The height of a solid cylinder is 15 cm and its diameter is 7 cm. Two equal conical holes of radius 3 cm and height 4 cm are cut off. Find the surface area of the solid.	3
3.	A toy is in the shape of a right circular cylinder with a hemisphere on one end and a cone on the other. The radius and height of the cylindrical part are 5cm and 13cm respectively. The radii of the hemispherical and conical parts are the same as that of cylindrical part. Find the surface area of the toy if the total height of the toy is 30cm.	4
4.	The cubes of each side 4cm are joined end to end. Find the surface area of the resulting cuboid.	4
5.	The volume of a cone is the same as that of a cylinder whose height is 20 cm and diameter 8cm. Find the radius of the base of the cone, if its height is 15cm.	4