Date:	Worksheet-Understanding Quadrilaterals	Subject:Mathematics
Class: VIII	Name of the student:	

1) A man has built a cubical water tank with lid and its outer edge is 2.5 m long. The outer surface of the tank excluding the base is covered with square tiles of side 25cm long. Find the number of tiles required.

2) The length, breadth and height of a solid cuboid are in the ratio 5:4:2. If the total surface area is $1216 \, cm^2$, find the dimension of the cuboid.

3) Length of a classroom is two times its height and its breadth is $1\frac{1}{2}$ times its height. The cost of whitewashing the walls at the rate of Rupees 1.60 per m^2 is Rupees 179.20.Find the cost of tiling the floor at the rate of Rs.6.00 per m^2.

4) Radhika has the frame of a lampshade in the form of a cylinder. The frame has a base diameter of 20 cm and height of 30 cm. She wants to cover it with a decorative cloth. A margin of 2.5 cm is to be given for folding it over the top and bottom of the frame. Find how much cloth is required for covering the lampshade.

5) The diameter of a roller 1.5 m long is 84 cm. If it takes 100 revolutions to level a playground, find the cost of leveling this ground at the rate of 50 paise per square meter.

6) A well is 6 m deep. The cost of plastering its inner surface at the rate of Rs. 20 per square meter is Rs.1320. Determine the diameter of the wall.

7) Twenty cylindrical pillars of a building are to be cleaned. If the diameter of a pillar is 0.5 m and height is 4 m, what will be the cost of cleaning them at the rate of Rs.3 per m^2.(π =3.14)

8) There are two cones. The ratio of their radii are 4:1.Also,the slant height of the second conies twice that of the former. Find the relationship between their curved surface areas.

9) The height and the base diameter of a conical tent is 16 m and 24 m respectively. Find the cost of canvas required to make it at the rate of Rs 210 per m^2.

10) A heap of rice is in the form of a cone where diameter is 48 m and height 10 m .The heap is to be covered by a canvas to protect it from rain. Find the cost of canvas required at Rs. 70 per m^2.

11) The circumference of the base of 9 m high wooden solid cone is 44m.find the slant height of the cone.

12) Curved surface area of a cone is 154 cm^2 and slant height is 14 cm .Find :
    i) Radius of the base.
    ii) Total surface area of the cone.

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13) The internal and external diameters of a hollow hemispherical vessel are 24 cm and 25 cm respectively .If the cost of painting 1 cm^2 of the surface area is Rs.0.05,find the total cost of painting the vessel all over.

14) A hemispherical bowl made of brass has inner radius 10.5 cm .Find the cost of polishing it on the inside at the rate of Rs. 0.12 per cm^2.

15) A river 3 m deep and 40 m wide is flowing at the rate of 2 km per hour, how much water will fall into the sea in a minute.

16) A cell phone has dimensions 10 cm x 5 cm x 2 cm, how many cell phones can be arranged in a box of dimensions 10 cm x 10 cm x 10cm?

17) A woodcutter desires to make dusters for school; he plans to make dusters of dimensions   10 cm x 4 cm x 3 cm. How many dusters can be made from a wooden plank of dimensions 4 m x 3 m x 1m?

18) Rain water which falls on a flat rectangular surface of length 6 m and breadth 4m is transferred into a cylindrical vessel of internal radius 20 cm .what will be the height of the water in the cylindrical vessel if the rainfall is 1cm. give your answer to the nearest whole number.(take π =3.14)

19) A cylindrical container of base radius 28 cm contains sufficient water to submerge a rectangular block of iron with dimensions 32 cm x 22 cm x14 cm. Find the rise in the level of water, when the block is completely submerged.

20) The difference between the outer lateral surface area and the inner lateral surface area of a cylindrical metallic pipe 28 cm long is 176 cm^2.Find the outer and the inner radii of the pipe if the pipe is made of 352 cm^3 of metal.

21) The surface area of a sphere of radius 5 cm is five times the curved surface area of a cone of radius 4 cm. Find the height and the volume of the cone.

22) A conical tent is to accommodate 11 person, each person must have 4 m^2 of the space on the ground and 20 m^3 of air to breathe, find the height of the cone.

23) A hemispherical bowl with radius 6 cm is filled with water ,if the water is transferred into a cylindrical vessel of base radius 3 cm ,find the height to which the water rises in the cylindrical vessel(use $\pi = \frac{22}{7}$)

24) The total cost of making a solid spherical ball is Rs.33957 at the rate of Rs. 7 per m^3, find the radius of the ball.