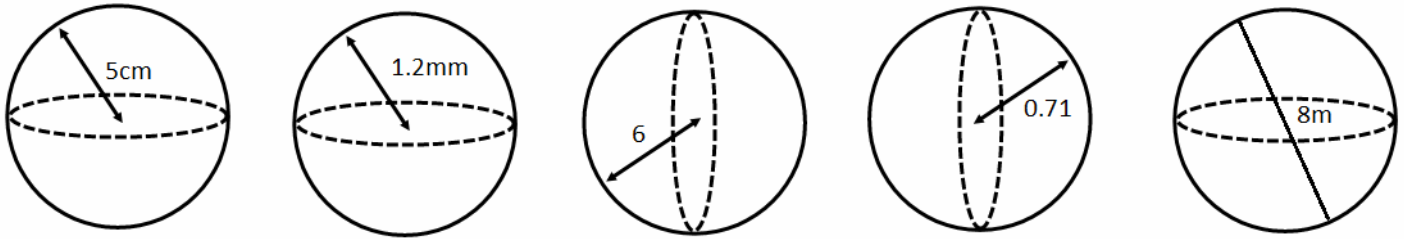
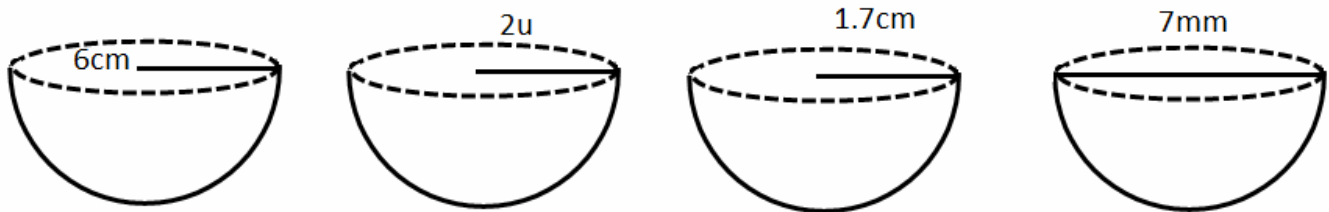


Volume and Surface Area of a Sphere – www.m4ths.com

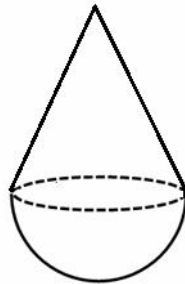
(1) Find the volume and surface area of each sphere below



(2) Find the volume and surface area of each (a) HOLLOW hemisphere below and (b) SOLID hemisphere below.

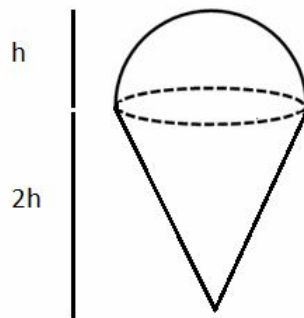


(3) Fred is making solid plastic toys as shown below. The toy is made of a cone on top of a hemisphere. The diameter of the hemisphere is 10cm and the slant height of the cone is 13cm.



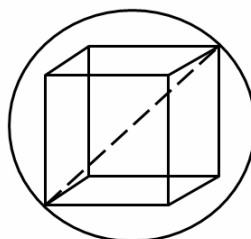
Find the volume and the surface area of the toy in terms of pi.

(4) An ice-cream has is made up of a cone and a hemisphere as shown below.



Find what percentage of the total ice-cream is inside the cone. You may assume the cone is filled.

(5) The diagram below shows a sphere with volume 36π . Find the maximum surface area of the cube drawn inside.



(6) If a sphere has volume A , what will the volume of a sphere with a radius of half its length have?

(7) 3 tennis balls are stacked in a tube such that they touch the end of the tube. The tube is a cylinder. Given the volume of the tube is 144π cubic units, find the volume of each tennis ball.