ST. LAWRENCE HIGH SCHOOL

A Jesuit Christian minority Institution

Subject: Mathematics   **Class: X**   **Date:20.04.2020**

Answer key of Worksheet 12

Chapter- Sphere

Topic-Whole surface area and volume of hemisphere

  1.Choose the correct alternative.   15x1=15

a) Whole surface area of a hemisphere with 7 cm radius is   Ans   ii) 462 sq cm

b) The volume of solid hemisphere with 42 cm diameter is   Ans i) 19404 cubic cm

c) Ratio of whole surface area of a hemisphere is 4:9. Then ratio of their radius is i) Ans   iii) 2:3

d) If radius of a solid hemisphere is gets twice then Volume becomes
Ans i)8 times

e) A solid hemisphere with 14 cm radius is fully immersed in a bucket full of water. Amount of water flown out of the bucket is   Ans   i) 5749.33 cubic cm

f) $127\dfrac{2}{7}$ sq cm metallic plate is needed to make a bowl .Length of the radius of the bowl is Ans   ii) 4.5 cm

g) If numerical value of whole surface area and volume of a solid hemisphere is equal. The length of the radius is Ans i) 4.5 units

h) Ratio of volume of two solid hemispheres is 1:8 . Ratio of their diameter is Ans ii) 2:4

i) 173.25 sq cm metallic plate is needed to make a bowl. Length of the radius of the bowl is   Ans i) 5.25 cm

j) Radius of the base of a hemispherical tomb is 21 dcm . the cost of coloring the upper surface at the rate of Rs 35 per meter is   Ans i) Rs 970.20

k) If a solid hemisphere with 0.7 dcm radius is fully immersed in a bucket of water. Amount of water flown out of the bucket is   Ans iii) 718.67 cubic cm

l) The numerical value of whole surface area of a solid hemisphere is equal to numerical value of curved surface area of a solid sphere. Ratio of the radius of the hemisphere and sphere is   Ans i) $2:\sqrt{3}$

m) Whole surface area of a solid hemisphere with 2r units radius is
Ans ii)$\dfrac{264}{7}r^2$ sq unit

n) If ratio of radius of two solid hemisphere is 3:5 then ratio of their whole surface area is Ans i) 9 :25

o) If ratio of radius of two solid hemisphere is 3:5 then ratio of their volume is Ans iii) 27: 125

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