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# ST. LAWRENCE HIGH SCHOOL



## A Jesuit Christian minority Institution

Subject: Mathematics

Class: X

Date:20.04.2020

### Worksheet 12

Chapter- Sphere

Topic-Whole surface area and volume of hemisphere

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1. Choose the correct alternative.  $15 \times 1 = 15$
- a) Whole surface area of a hemisphere with 7 cm radius is i) 475 sq cm ii) 462 sq cm iii) 462 cubic cm iv) none of these
  - b) The volume of solid hemisphere with 42 cm diameter is i) 19404 cubic cm ii) 19404 sq cm iii) 17404 cubic cm iv) none of these
  - c) Ratio of whole surface area of a hemisphere is 4:9. Then ratio of their radius is i) 3:2 ii) 1:2 iii) 2:3 iv) none of these
  - d) If radius of a solid hemisphere is gets twice then Volume becomes
    - i) 8 times ii) 2 times iii) 3 times iv) none of these
  - 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 i) 5749.33 cubic cm ii) 5749.33 sq cm iii) 5479.33 cubic cm iv) none of these
  - f)  $127\frac{2}{7}$  sq cm metallic plate is needed to make a bowl. Length of the radius of the bowl is i) 5.5 cm ii) 4.5 cm iii) 4.5 m iv) none of these
  - g) If numerical value of whole surface area and volume of a solid hemisphere is equal. The length of the radius is i) 4.5 units ii) 5.5 units iii) 3 units iv) none of these
  - h) Ratio of volume of two solid hemispheres is 1:8. Ratio of their diameter is i) 3:2 ii) 2:4 iii) 2:3 iv) none of these
  - i) 173.25 sq cm metallic plate is needed to make a bowl. Length of the radius of the bowl is i) 5.25 cm ii) 5.25 sq cm iii) 5.75 cm iv) none of these
  - 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 i) Rs 970.20 ii) Rs 970.25 iii) Rs 975.20 iv) none of these
  - 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 i) 718.67 sq cm ii) 0.71867 cubic cm iii) 718.67 cubic cm iv) none of these
  - 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 i)  $2:\sqrt{3}$  ii) 4:3 iii)  $\sqrt{3}:2$  iv) none of these
- m) Whole surface area of a solid hemisphere with  $2r$  units radius is i)  $\frac{88}{7} r^2$  sq unit  
ii)  $\frac{264}{7} r^2$  sq unit iii)  $264.7 r^2$  sq unit iv) none of these
- n) If ratio of radius of two solid hemisphere is 3:5 then ratio of their whole surface area is i) 9:25 ii) 25:9 iii) 3:25 iv) none of these
- o) If ratio of radius of two solid hemisphere is 3:5 then ratio of their volume is i) 9:25 ii) 125:27 iii) 27:125 iv) none of these

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