



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics

Class: X

Date: 28.04.2020

Answer key of worksheet-19

Chapter- Right circular cone

Topic- Volume of right circular cone

1. Choose the correct alternative. 15x1=15
 - a) Find the volume of a right circular cone with radius 7 m and height 9 m .
Ans ii) 147π cubic meter
 - b) Calculate volume of a right circular cone with radius 5 cm and height 12 cm
Ans i) 100π cubic cm.
 - c) calculate volume of a right circular cone with 10 cm lateral height and 6 cm radius.
Ans iii) 96π cubic cm
 - d) Find ratio of volumes of two right circular cones when ratio of their height is 1:3 and ratio of their base radius is 3:1.
Ans i) 3:1
 - e) If radius and height of a right circular cone get doubled. Then which one of the following is true? If old volume is A and new volume is B
Ans i) $B=8A$
 - f) Keeping radius constant of a right circular cone if height is made double. Then volume increases by Ans iii) 100%
 - g) Ratio of the volume of two right circular cone is 1:4 and ratio of radius is 4:5 , then ratio of height is Ans i) 25:64
 - h) Volume of a right circular cone is 100π cubic cm and height is 12 cm . Radius is
Ans iii) 5 cm
 - i) A right circular cone has volume as V cubic unit and base area is A sq unit . Height is
Ans i) $3V/A$
 - j) If Numerical values of volume and curved surface area of a right circular cone are equal . h unit and r unit are height and radius of the cone respectively. Then find value of $1/h^2 + 1/r^2$ Ans ii) $1/9$

k) ratio of radius of a right circular cylinder and a right circular cone is 3:4 and ratio their height is 2:3 , then ratio of their volumes is Ans iii) 9:8

l) Find volume of a right circular cone with height 4 dcm and lateral height 5 dcm.

Ans i) 37.71 cubic dcm

m) Find height of a right circular cone with diameter 28 cm and volume 9856 cubic cm.

Ans i) 48 cm

n) How much water will be contained in a right circular conic container with radius 3 dcm and height 9 dcm ?

Ans ii) 84.8 litre

o) Find volume of a right circular cone with 9 cm radius and 10 cm lateral height.

Ans i) 81π cubic cm

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