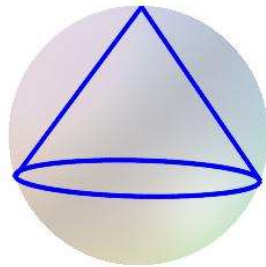


The Mathematics Department
Presents
The Problem of the Month
April 2024

Imagine a sphere of radius r . Inscribe a right circular cone in this sphere. (A right circular cone is one whose base is a circle and whose vertex is directly above the center of the circle.) Find the largest possible volume of such a cone and express this in terms of r .



The Rules:

- 1) The contest is open to the entire St. Joseph's University community.
- 2) Solutions, with the name(s) of the solver(s) and the date of submission, are to be placed in a sealed envelope in the mailbox of Dr. D.N. Seppala-Holtzman (Brooklyn) or of Prof. Victoria Hong (BT 1-16 in Patchogue). Solutions may also be submitted electronically to dholtzman@sjny.edu.
- 3) Solutions may be submitted by individuals or by a group.
- 4) The winner(s) will have his/her/their name(s) publicized. Fame and glory are sure to follow.

Good Luck

For further information, please contact Dr. D.N. Seppala-Holtzman. (dholtzman@sjny.edu)
Also available at: faculty.sjny.edu/~holtzman