PROBLEM OF THE MONTH #1

FEBRUARY 2020

Open to all students whose mathematics classes come solely from the following list: Math 92, Math 105, Math 151, Math 161, Math 162, Math 163, Math 175, Math 177, Math 287, Math 185, Math 241, or Math 277 or their equivalent.

Directions: Write a complete solution to the problem below showing all work. Your paper must have your name, W#, and Southeastern email address. Solutions are to be placed in the envelope for Problem #1 located in the Department of Mathematics Office, Fayard 308 by 12:00 noon, **Thursday, February 27**. No late papers will be accepted.

All papers with a correct solution will be entered in a drawing for a great prize!

Questions concerning the problem of the month should be sent to either Dr. Tilak de Alwis (tdealwis@selu.edu), or Dr. Dennis Merino (dmerino@selu.edu)

PROBLEM: *Prism and Cheese*!

A triangular prism of cheese is measured and found to be 3 inches tall. The edges of its base are 9, 9, and 4 inches long. Several congruent prisms are to be arranged around a common 3-inch segment, as shown. How many prisms can be accommodated? To the nearest cubic inch, what is their total volume?

(***Problem courtesy of Exeter Academy Teaching Materials***)