PROBLEM OF THE MONTH #1

OCTOBER 2019

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.

<u>Directions:</u> 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 4:30 p.m. **Thursday, October 31**. 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 (<u>tdealwis@selu.edu</u>), or Dr. Dennis Merino (<u>dmerino@selu.edu</u>)

PROBLEM: Piped Music!

The figure below shows three circular pipes, all with 12-inch diameters, that are strapped together by a metal band. How long is the band?

Now suppose that four such pipes are strapped together with a snuggly-fitting band. How long is this band?

(Problem courtesy of Exeter Academy Teaching Materials)

