

PROBLEM OF THE MONTH #1

SEPTEMBER 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.

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 4:30 p.m., **Monday, September 30**. 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: Racetrack!

Starting at the same spot on a circular track that is 20 meters in diameter, A Pembroke Welsh Corgi and a Kitty of an unknown breed run in opposite directions, at 70 meters per minute and 50 meters per minute, respectively. They run for 30 minutes. What distance separates the Corgi and the Kitty when they finish? In this question, the word “distance” means, the distance along the circle, following the smaller arc.

(Problem courtesy of Exeter Academy Teaching Materials and Ms. Tracy Pourciau, Department of Mathematics, SELU)