

PROBLEM OF THE MONTH #1

OCTOBER 2009

Open to all students whose mathematics classes come solely from the following list:
Math 92, Math 155, Math 161, Math 162, Math 163, Math 167, Math 168, Math 185,
Math 241, or Math 267 or their equivalent

Directions: Write a complete solution to the problem below showing all work. Your paper must have your name and Southeastern email address. Solutions are to be placed in the box for Problem #1 located in the Department of Mathematics Office, Fayard 308 by 4:00 p.m., Friday, October 30. No late papers will be accepted.

All papers with a correct solution to both Problem A and Problem B will be entered in a drawing for a fantastic prize!

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

Problem A: Rationalize the denominator and simplify. Provide the exact answer:

$$\frac{1}{\sqrt{2} + \sqrt{3}}$$

Problem B: Rationalize the denominator and simplify. Provide the exact answer:

$$\frac{1}{\sqrt{2} + \sqrt{3} + \sqrt{5}}$$