

# PROBLEM OF THE MONTH #2

OCTOBER 2015

**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 #2 located in the Department of Mathematics Office, Fayard 308 by 4:30 p.m., **Thursday, November 12**. 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](mailto:tdealwis@selu.edu)), or Dr. Randy Wills ([rwills@selu.edu](mailto:rwills@selu.edu))

## **Problem:**

Determine whether the series  $\sum_{n=1}^{\infty} \frac{2n+3}{(n+1)(n+2)(n+3)(n+4)}$  is convergent or divergent. If convergent, find the exact sum