

# PROBLEM OF THE MONTH #1

**FEBRUARY 2015**

Open to all students whose mathematics classes come solely from the following list: Math 92, Math 155, Math 161, Math 162, Math 163, Math 165, 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., **Thursday, March 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 : *Be a Daredevil!***

Paul Walker is a crackerjack pilot known for his fearless aerial stunts. For one particular stunt, he put the plane into a dive and when he reached a certain height, he pulled up just in time to avoid crashing into the ground. A mathematical model for his height  $h(t)$  above the ground (in hundreds of feet) after  $t$ -seconds is given by

$$h(t) = \frac{t^2 + 25}{t}, t > 1$$

*Without using calculus*, determine the following:

- The time  $t$  when he pulls up
- The height above the ground when he pulls up.

**Paul Walker's aerial stunt show is coming to Hammond!!!!**

**Be there or be a complete square.**

