

## Rockhurst University Mathematics Problem of the Month

Congratulations to Nicholas Brubaker and Kaleb Waite, winners of March's contest. Each wins a prize from the POM puzzle collection. Honorary mention goes to Doyle Witt, Sean Willis, Kristina Carpenter, and Peter Simone. The contest is open to any currently enrolled Rockhurst student. The winner will be chosen according to who has the best solution (not just answer) to the problem. Ties will be resolved by considering the order in which the solutions were received.

Solutions should be submitted to Keith Brandt (Richardson 120) by the end of the month. Winners receive wonderful prizes, so give these problems some thought!

### Problems for April 2007:

1. Prove that any postage of 8 cents or more can be obtained using 3 and 5 cent stamps.
2. Without using computer software, find the center of mass of the region in the plane that lies between  $y=\sin(x)$  and the  $x$ -axis from  $x=0$  to  $x=\pi/2$ .