

## Rockhurst University Mathematics Problem of the Month

Congratulations to Tony Cattaneo and Chris Shaver, winners of January's contest. Each wins a prize from the POM puzzle collection. Honorary mention goes to Doyle Witt, Jacqueline Summers, Alaina Manning, Br. Glenn Kerfoot, 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 February 2007:

1. Professors are eligible to retire when the sum of their age and their years of service is equal to 80. Let  $x$  represent a professor's age when hired. Express the retirement eligibility age  $R$  as a function of  $x$ .
2. Find integer solutions  $(x, y)$  to the equation  $xy = 5x + 11y$ . (The winner is the one who finds the most.)