

# PROBLEM OF THE MONTH

## FEBRUARY/MARCH 2012

### SUM OF LOGS

For any real number  $x$ , let  $\lfloor x \rfloor$  denote the greatest integer less than or equal to  $x$ . Compute the following sum without using a calculator or computer:

$$\lfloor \log_3 1 \rfloor + \lfloor \log_3 2 \rfloor + \dots + \lfloor \log_3 1,000 \rfloor.$$

For contest rules and prize information see the Problem of the Month display on the first floor of LeConte College. Copies of problems are available in the student lounge in LC 311. Contact Dr. Kaczowski (kaczks@math.sc.edu) or Brett Barwick (barwicjb@mailbox.sc.edu) for more details.

Solutions due in LC 411 by March 15<sup>th</sup>.