

# Mathematics Competition

**\$25 prize** for the best solution for each of 5 problems.

**\$100 prize** for solving the most problems throughout the semester.

## *Problem #3 of five - February 22 to March 8, 2013*

A spider lives on the surface of a cube with sides of length one. The spider's nest is at one corner of the cube and for safety reasons it never goes more than 2 units, along the surface, away from its nest. Describe the area on the cube where a fly could land safely.

*Direct any questions to Kamlesh Parwani, OM 3351, or Keith Wolcott, OM 3341*

## Rules and Awards

- Any undergraduate currently enrolled at EIU is eligible to participate.
- Each solution is to be the work of one individual and is to be submitted with the solver's name, year in school, email address, local address and home address.
- Each solution is to be written or typed and is due in the main Mathematics Department office (OM3611) by 2:00 p. m., Friday, March 8.
- Entries will be graded on the basis of clarity of exposition and elegance of solution.
- An award of \$25 will be given for the best solution for each of the 5 semester problems. In case no award is made, the prize will be added to the next week's award. In the case of a two-way tie, the award will be split. If there are more than two 'best' solutions, a system of drawings will determine the winners.
- **\$100 prize** for solving the most problems throughout the semester.
- **Challenges, solutions, names of all solvers, and comments will be posted on the Challenge of the Week homepage:**  
<http://www.eiu.edu/math/challenge.php>