Mathematics Competition

$25 prize for the best solution for each of 5 problems.
$100 prize for solving the most problems throughout the semester.

Problem #5 of five - Oct 26 to Nov 16, 2012

Given n points in the plane, no three of which are collinear, prove that a shortest path that contains them all, has no self intersections.

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, Nov 16.
- 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`