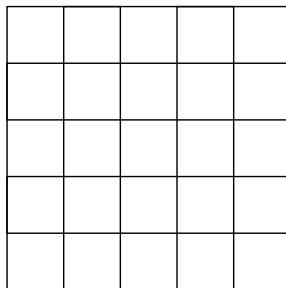


**I U P U I**  
**MATH CLUB TEASER #37**

February 12, 2010  
(due February 19, 2010)

The contentious Professor Zerep has a friend teaching a class. There are 25 desks in the classroom, arranged in a  $5 \times 5$  square, and the friend decides to change the seating order of all the students by moving each of them to an adjacent seat (forward, backward, left, or right). The Professor argues that this can't be done but the friend insists that it should be possible. Who is right and why?



The IUPUI Math Club invites everybody to submit solutions to its weekly recreational mathematics problem. Interested individuals and teams of up to four participants must submit a cover sheet (available at [jagmath.usg.iupui.edu](http://jagmath.usg.iupui.edu)) together with their written solution. At the end of the semester, every IUPUI student that sent a correct solution will receive a certificate of merit. Prizes will be distributed among the IUPUI undergraduate teams that submit the most correct solutions.

Solutions are due one week after each problem is posted, and should be faxed to (317) 274-3460, dropped off in person at LD 270, or sent by campus or U.S. mail to:

**Math Club Teaser**  
Dept. of Mathematical Sciences  
IUPUI, LD-270  
402 N. Blackford Street  
Indianapolis, IN 46202