

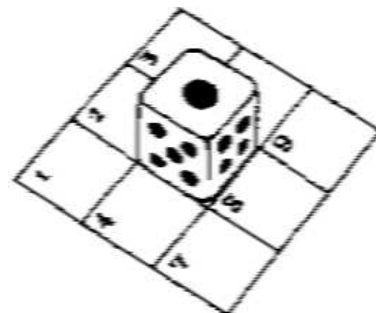
I U P U I

MATH CLUB TEASER #16

March 13, 2009
(due March 27, 2009)

The following game is very popular at the Pascal Casino: Place a die in the center of a three by three square so the one-face is on top as shown in the illustration. A flip of the die consists of tilting it on its edge so it rolls onto an adjacent square (vertical or horizontal, but not diagonal).

Your task is to flip the die until it rests on square number 7 with the six-face on top. What is the least number of moves necessary?



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) 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