

I U P U I
MATH CLUB TEASER #20

April 10, 2009
(due April 17, 2009)

London Bridge is falling down in 17 minutes! Alice, Bob, Carol, and Dave are trapped together on one side, and need to cross over to safety.

There is a catch; it is very dark, so they need to use a flashlight which is so dim that only one or two people can cross at the same time. The flashlight must be walked back and forth. Of course, a couple walking together will walk at the speed of the slower walker. Their walking speeds are:

- Alice: 1 minute to cross.
- Bob: 2 minutes to cross.
- Carol: 5 minutes to cross.
- Dave: 10 minutes to cross.

“Can they cross in time?” asked my fair lady.

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
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