The problems are available at `http://jan.ucc.nau.edu/ns46/pow`. Paper copies are provided outside the Math Office: Room 107, Adel Mathematics Building. Contact Nándor Sieben (Adel 175) if you have any questions about the problems. Please submit your solutions to the Math Office by Wednesday 2/1/10. Winning solutions and a summary of scores are at the POTW bulletin board in the Adel Math Building.

Research problems with unknown solutions are marked by (!). These problems might be hard or might be easy, we just do not know. A conjecture or a result about a special case or simply an idea about a possible solution method can be very valuable.

Lost in space

Let f, g and h be different lines in 3-dimensional space, such that any line e that has common points with both f and g also has a common point with h. What can we say about the mutual position of the lines f, g and h ?

17. **PROBLEM OF THE WEEK** NAU Math. & Stat.

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