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 2/22/10. 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.

Implicit danger

Two sailboats on the Mormon Lake are travelling in perpendicular directions at the steady speed of 10 km/h. At the moment, they are both approaching the intersection of their paths. The distances from the intersection point are 1 km and 2 km respectively. An NAU student travelling in the first boat wants to swim (risking his life) to the other boat. The other boat has his full supply of donuts. He can swim at a top speed of 2 km/h. When should he jump in the water in order to minimize the time spent in the ice cold water?

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

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 2/22/10. 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.

Implicit danger

Two sailboats on the Mormon Lake are travelling in perpendicular directions at the steady speed of 10 km/h. At the moment, they are both approaching the intersection of their paths. The distances from the intersection point are 1 km and 2 km respectively. An NAU student travelling in the first boat wants to swim (risking his life) to the other boat. The other boat has his full supply of donuts. He can swim at a top speed of 2 km/h. When should he jump in the water in order to minimize the time spent in the ice cold water?