

# PROBLEM OF THE WEEK 11

Due Wednesday, December 4 at 5:00 pm

**Question.** A quadratic equation  $x^2 + ax + b + 1 = 0$  with integers  $a$  and  $b$  has roots which are positive integers. Prove that  $a^2 + b^2$  is not a prime number.

---

- All answers should be clearly explained. Submit it to the Math/Stat Office, AMB 107.
- If your instructor gives you credit for POTW, write his/her name with the class number.
- Contact Bahattin Yildiz with questions: bahattin.yildiz@nau.edu (AMB 134)