

PROBLEM OF THE WEEK 9

Due Wednesday, November 13 at 5:00 pm

Question. For positive integers n , we consider the remainder when we divide the numbers $(2n - 1)^{502} + (2n + 1)^{502} + (2n + 3)^{502}$ by 2012. What is the sum of all different remainders that we get? (Note that a remainder will be a number r with $0 \leq r < 2012$.)

- 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)