

# PROBLEM OF THE WEEK 8

Due Wednesday, October 31 at 5:00 pm

**Question.** Prove that there are infinitely many composite numbers in the sequence

$$1, 31, 331, 3331, 33331, \dots$$

(A composite number is a number that is greater than 1 and is not a prime.)

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- 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](mailto:bahattin.yildiz@nau.edu) (AMB 134)
  - The problems are available online at <https://naumathstat.github.io/problem-of-the-week/>