

MATH 290-NUMBER THEORY FOR TEACHERS
PROBLEM OF THE DAY #9
DUE WEDNESDAY, FEBRUARY 5, 2014

1. What are the powers of 10 mod 3? Use this to decide what $7421 = 7000 + 400 + 20 + 1$ is mod 3. Does this suggest a method for determining when a number is divisible by 3?
2. Can you do something similar for 9? How can you quickly tell if a number is divisible by 9?