2026 TUESDAY PROBLEMS #4

2 november

hints, one per page
close your eyes and press "nextpage" n times for a hint to problem n

1. Simplify each term?

2. Show that g divides N.

3. If you know that the first digit of N is d, can you give bounds on N in terms of d?

4. Let $r_n = f_n \bmod N$. What can you say about the sequence r_n?

5. ummmmmm...