Math 242 Reading Guide

Prime Numbers

Read "Why prime numbers still fascinate mathematicians, 2,3000 years later" by Martin H. Weissman, at https://theconversation.com/why-prime-numbers-still-fascinate-mathematicians-2-300-years-later-92484. Then read "The Sequence of Prime Numbers" by Hans Rademacher and Otto Toeplitz, at https://www.jstor.org/stable/j.ctt183pvvh.5.

Then answer the following questions. Bring your answers to class on Monday.

1. Except for 2 and 5, all primes end in one of the digits 1, 3, 7, or 9. What are the relative frequencies of each of these final digits?

2. What did Robert Lemke Oliver and Kannan Soundararajan discover about the final digits of primes?

3. Describe a method of finding 10,000 consecutive integers, *none* of which are prime.