Lecture 20: A spigot for $e$
Initialize  Let the first digit be 2 and let $A = (1, 1, ..., 1)$ be an array of length $n + 3$ (0-indexed).

Loop  Repeat $n - 1$ times:

1. Multiple each value in $A$ by 10.
2. From the right, reduce the $i^{th}$ entry of $A$ modulo $i + 2$, carrying the quotient one place left.
3. The final quotient is the next digit of $e$. 