Digits of Prefix Product

Input file: standard input
Output file: standard output

Time limit: 2 seconds

Memory limit: 1024 megabytes

This is an **output-only** problem. No input is provided.

Output a sequence of 10 positive integers $(a_1, a_2, \dots, a_{10})$ that satisfies **all** of the following conditions. All integers should be represented in standard decimal notation without leading zeros.

- Each of a_1, a_2, \ldots, a_{10} contains no digit equal to 0
- Each of a_1, a_2, \ldots, a_{10} has at least 100 digits
- The total number of digits in a_1, a_2, \ldots, a_{10} is at most 10^5
- For each i ($1 \le i \le 10$), let $b_i = a_1 \times a_2 \times \cdots \times a_i$. Then, in each b_i , every pair of adjacent digits must be different (no two adjacent digits are the same)

Input

No input is provided.

Output

Output the sequence a_1, a_2, \ldots, a_{10} in this order, one number per line, using decimal notation without leading zeros.

Note

Defining $(a_1, a_2, \dots, a_{10})$ as $(a_1, a_2, \dots, a_{10}) = (28, 19, 2, 19, 15, 3, 14, 14, 29, 27)$ results in:

- $b_1 = 28$
- $b_2 = 532$
- $b_3 = 1064$
- $b_4 = 20216$
- $b_5 = 303240$
- $b_6 = 909720$
- $b_7 = 12736080$
- $b_8 = 178305120$
- $b_9 = 5170848480$
- $b_{10} = 139612908960$

This output satisfies conditions 1, 3, and 4. However, it does **not** satisfy condition 2, so it is judged as incorrect.