Enumerate sandwich numbers X48217_en

Exactly like in the exercise "Sandwich numbers", we define a sandwich number as a natural number n with only two different digits d and e that are repeated in the form $de_1e_2 \cdots e_kd$, with $k \geq 1$.

Write a **program** that displays all the sandwich numbers of X digits on the screen.

Input

The input consists of a natural number X, with $3 \leq X \leq 9$.

Output

A list of sandwich numbers of X digits, one per line. The numbers can be written **in any order**. You can generate the numbers as you wish, either as integers or character by character.

Sample input 1

```
3
```

Sample output 1

```
101
121
131
141
151
161
171
181
191
202
212
232
242
252
262
272
282
292
303
313
323
343
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393
404
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424
434
454
464
474
484
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737
747
757
767
787
797
808
818
828
838
848
858
868
878
898
909
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929
939
949
959
969
979
989

Problem information

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Generation: 2026-01-25T21:36:31.348Z