
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

3

Sample output

101
121
131
141
151
161
171
181
191
202
212
232
242
252
262
272
282
292
303
313
323
343
353
363
373
383
393
404
414
424
434
454
464
474
484
494

505	757
515	767
525	787
535	797
545	808
565	818
575	828
585	838
595	848
606	858
616	868
626	878
636	898
646	909
656	919
676	929
686	939
696	949
707	959
717	969
727	979
737	989
747	

Problem information

Author : PRO1

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