## Special Square

Loay has won first two contests in AAST training level 3, and he is wondering: Will his competitors fight back hard in next contests? Let's hope they do. While he was thinking, he was drawing a special square.

This special square has unique properties, its sides has length $3^{\wedge} n$ (i.e if $n$ is 2 , it is $9 \times 9$ square), and when it divided to 9 equal squares, the middle one is just empty square while the other 8 are special squares too (Isn't it interesting?, see sample input and output for more understanding).

NOTE: 1 X 1 square filled with '0' is also special square.

## Input

just one integer $N(1<=N<=7)$

## Output

print the given special square whose sides of length $3^{\wedge} \mathrm{N}$

## Example

## Input:

1
Output:
000
00
000
Input:
2

## Output:

000000000
000000
000000000
000000
0000
000000
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000000
000000000
Input:
3

## Output:

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