C. Harmony Analysis

time limit per test: 3 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

The semester is already ending, so Danil made an effort and decided to visit a lesson on harmony analysis to know how does the professor look like, at least. Danil was very bored on this lesson until the teacher gave the group a simple task: find 4 vectors in 4-dimensional space, such that every coordinate of every vector is 1 or -1 and any two vectors are orthogonal. Just as a reminder, two vectors in n-dimensional space are considered to be orthogonal if and only if their scalar product is equal to zero, that is:

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Danil quickly managed to come up with the solution for this problem and the teacher noticed that the problem can be solved in a more general case for 2^k vectors in 2^k-dimensinoal space. When Danil came home, he quickly came up with the solution for this problem. Can you cope with it?

Input

The only line of the input contains a single integer k ($0 \leq k \leq 9$).

Output

Print 2^k lines consisting of 2^k characters each. The j-th character of the i-th line must be equal to '$*$' if the j-th coordinate of the i-th vector is equal to -1, and must be equal to '$+$' if it's equal to $+1$. It's guaranteed that the answer always exists.

If there are many correct answers, print any.

Examples

input

```
2
```

output

```
++**
+*+*
++++
+**+
```

Note

Consider all scalar products in example:

- Vectors 1 and 2: $(+1)\cdot(+1)+(+1)\cdot(-1)+(-1)\cdot(+1)+(-1)\cdot(-1)=0$
- Vectors 1 and 3: $(+1)\cdot(+1)+(+1)\cdot(+1)+(-1)\cdot(+1)+(-1)\cdot(+1)=0$
- Vectors 1 and 4: $(+1)\cdot(+1)+(+1)\cdot(-1)+(-1)\cdot(-1)+(-1)\cdot(+1)=0$
- Vectors 2 and 3: $(+1)\cdot(+1)+(-1)\cdot(+1)+(+1)\cdot(+1)+(-1)\cdot(+1)=0$
- Vectors 2 and 4: $(+1)\cdot(+1)+(-1)\cdot(-1)+(+1)\cdot(-1)+(-1)\cdot(+1)=0$
- Vectors 3 and 4: $(+1)\cdot(+1)+(+1)\cdot(-1)+(+1)\cdot(-1)+(+1)\cdot(+1)=0$