



Zero Sum

Consider the sequence of digits from 1 through N (where $N=9$) in increasing order: 1 2 3 ... N.

Now insert either a '+' for addition or a '-' for subtraction or a ' ' [blank] to run the digits together between each pair of digits (not in front of the first digit). Calculate the result that of the expression and see if you get zero.

Write a program that will find all sequences of length N that produce a zero sum.

PROGRAM NAME: zerosum

INPUT FORMAT

A single line with the integer N ($3 \leq N \leq 9$).

SAMPLE INPUT (file zerosum.in)

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OUTPUT FORMAT

In ASCII order, show each sequence that can create 0 sum with a '+', '-', or ' ' between each pair of numbers.

SAMPLE OUTPUT (file zerosum.out)

```
1+2-3+4-5-6+7
1+2-3-4+5+6-7
1-2 3+4+5+6+7
1-2 3-4 5+6 7
1-2+3+4-5+6-7
1-2-3-4-5+6+7
```

Submit a solution:

No file chosen

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