



Calculator

Mouse Stofl discovered a mechanical calculator in the attic. The calculator only supports addition, subtraction and multiplication.

Stofl wants to check whether it's still working properly, so he asks you for correct results of several calculations.

Input

Three integers op, a, b .

- If $op = 0$, then Stofl wants to calculate $a + b$.
- If $op = 1$, then Stofl wants to calculate $a - b$.
- If $op = 2$, then Stofl wants to calculate $a \cdot b$.

Output

Print a single number – the result of Stofl's calculation.

Limits

There are 4 batches of inputs worth 25 points each. In all inputs $0 \leq op \leq 2$ and $-10^9 \leq a, b \leq 10^9$.

- In the first batch $op = 0$ and $0 \leq a, b$.
- In the second batch $op \leq 1$.
- In the third batch $-10^4 \leq a, b \leq 10^4$.
- In the fourth batch, there are no further restrictions.

Examples

Input	Output
0 5 8	13
Input	Output
0 12 -23	-11
Input	Output
1 25 4	21
Input	Output
2 13 7	91