not-really-math

Mr. Connolly decides to give Keith a math problem, which contains integers with value *v* as well as two possible operators: multiplication (m) and addition (a). Addition takes precedence over multiplication. Keith evaluates the expression left to right, accounting for additive precedence. Given an expression with length *n*, print Keith's answer, taken mod $2^{32} - 1$.

Bounds:
$5 \leq n \leq 10000$, $1 \leq v \leq 10000$

Input:
One line with Mr. Connolly's math problem will be given.

Output:
Print Keith's answer, taken mod 2^{32} - 1.

Sample Input:
2m3a19m2a38m1

Sample Output:
1760

Explanation:
2*(3+19)*(2+38)*1 = 1760