Derivation

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Zag is learning derivation recently. He gives you a polynomial and asks you to help find its derivative.

Formally, let's assume that the coefficient of the terms of x^i is a, and specify the correct expression of a polynomial as follows:

1. The degree of the terms is non-negative and in decreasing order.
2. If $a = 0$, do not write this term; otherwise, if $a = 1$, and $i \neq 0$, do not write the coefficient.
3. For the terms with $i = 0$, they are expressed as `a` for the terms with $i = 0$; for terms with $i = 1$, they are expressed as `ax`; for other terms, they are expressed as `ax^i`.
4. If the coefficient of some term is negative, add a negative sign in front of it, otherwise, add a positive sign. Note that for the first term, if the coefficient is positive the plus sign is omitted.
5. In particular, if the polynomial is $f(x) = 0$, it should be expressed as `0`.

Input

The input contains `f(x)=` followed by a correct expression of a polynomial.

The data guarantees that the length of the input string does not exceed 10^6, and the coefficient and degree of the input polynomial do not exceed 10^5.

Output

First output `f'(x) =`, and then output the derivative of the given polynomial. The format should be consistent with the description above.

Example

standard input	standard output
`f(x)=x^4-3x^2-x+1`	`f'(x)=4x^3-6x-1`