

# Problem L

## Last Word



The `substring()` function is a commonly-used operation available in most programming languages that operates on strings. A start offset and a length are provided and used to construct a new string containing only the characters in a sequence of that length beginning from the offset.

One particular string has had this called a large number of times in sequence: we repeatedly used the standard library function `substring(s, start, length)` to chop it up until now a potentially much shorter string remains.

Find the value of the string produced by all of these operations.

### Input

- The first line of input contains the string  $s$  ( $1 \leq |s| \leq 10^6$ ).
- The second line of input contains the number of operations,  $n$  ( $1 \leq n \leq 10^6$ ).
- Each of the following  $n$  lines contains the two integers  $start_i$  and  $length_i$  ( $0 \leq start_i < length_{i-1}; 1 \leq start_i + length_i \leq length_{i-1}$ ).

### Output

Output the string after all of the successive `substring()` operations.

**Sample Input 1**

```
helloworld
2
1 9
0 5
```

**Sample Output 1**

```
ellow
```

**Sample Input 2**

```
abcdefghijklmnopqrstuvwxyz
8
1 24
1 22
1 20
1 18
1 16
1 14
1 12
1 10
```

**Sample Output 2**

```
ijklmnopqr
```