I will be at the senate today to hear a petition from Tillius. Cassius and Brutus have been acting strange. Should be back in time for dinner.

U iuxx nq mf ftq eqzmfq fapmk fa tqmd m bqfufuaz rday Fuxxuge. Omeeuge mzp Ndgfge tmhq nqqz mofuzs efdmzsq. Etagxp nq nmow uz fuyq rad puzzqd.

|  |  |
| --- | --- |
| I | U |
| w | i |
| l | x |
| b | n |
| e | q |
| a | m |
| t | f |
| h | t |
| s | e |
| n | z |
| o | a |
| d | p |
| y | k |
| r | d |
| p | b |
| f | r |
| m | y |
| u | g |
| c | o |
| k | w |
|  |  |

A 65

a m

b n

c o

d p

e q

f r

g s

h t

i u

j v

k w

l x

m y

n z

o a

p b

q c

r d

s e

t f

u g

v h

w i

x j

y k

z l

PROBLEM

A TROVE WAS FOUND IN ROME CONTAINING HUNDREDS OF LETTERS WRITTEN BY JULIUS CAESAR. ALL OF THEM WERE ENCRYPTED WITH A CAESAR CIPHER WITH THE KEY SUSPECTED TO BE HIS BIRTHDAY IN JULY.

WRITE A PROGRAM TO DECRYPT THE LETTERS.

ONLY THE ALPHABET CHARACTERS FROM AA TO ZZ ARE ENCRYPTED. UPPERCASE AND LOWERCASE CHARACTERS ARE ENCRYPTED THE SAME WAY WHILE PRESERVING THEIR CASE. NUMBERS, SPACES, AND SPECIAL CHARACTERS ARE ALL KEPT UNCHANGED.

STANDARD INPUT

YOUR PROGRAM MUST READ THE TEXT OF THE LETTERS FROM THE STANDARD INPUT WITH A MAXIMUM OF N=10000N=10000 CHARACTERS. THE INPUT WILL BE A STRING IN A SINGLE LINE.

STANDARD OUTPUT

YOUR PROGRAM MUST PRINT THE DECRYPTED TEXT FOR THE INPUT STRING TO THE STANDARD OUTPUT.

CONSTRAINTS AND NOTES

10^41≤N≤10

THIS WAS THE LAST LETTER FOUND IN THE ARCHIVE. THE OUTPUT IS THE DECRYPTED VERSION OF THE ENCRYPTED INPUT.