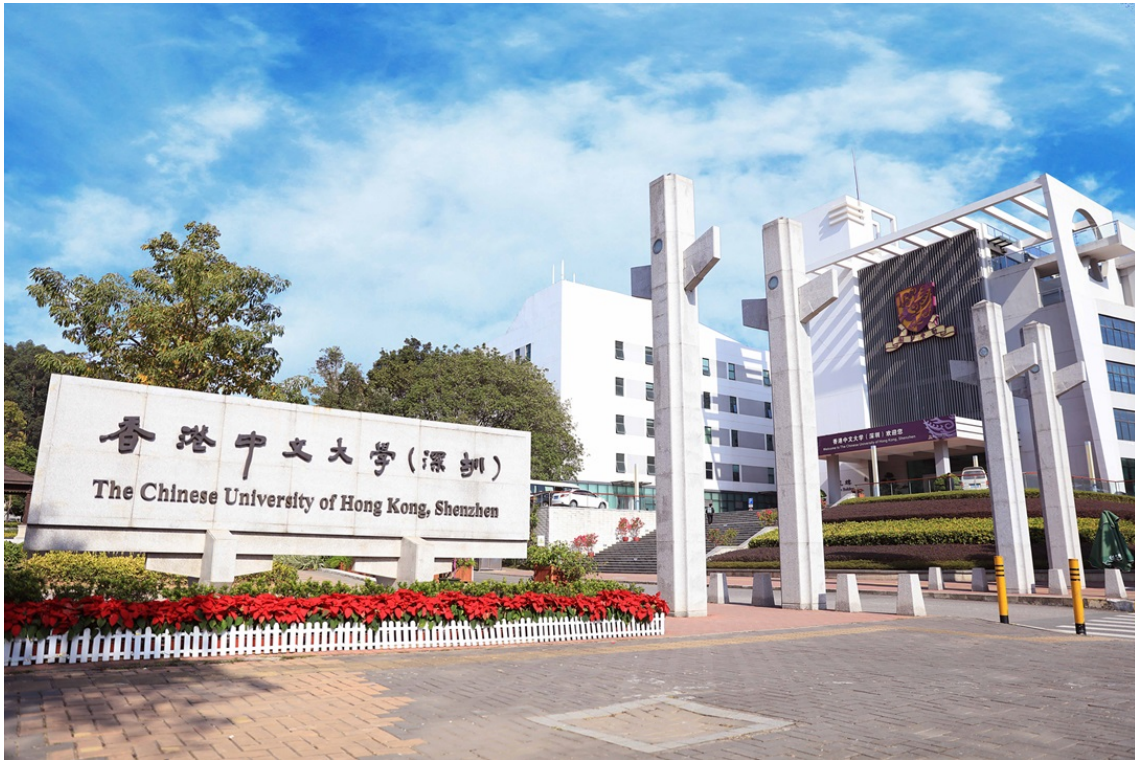


Greetings from Prof. Chen

Input file: standard input
Output file: standard output
Time limit: 1 second
Memory limit: 1024 megabytes

Welcome to CUHK-Shenzhen! Prof. Chen loves to send greetings using strings consisting only of lowercase English letters.



Given an integer n , construct a string consisting only of lowercase English letters such that the sum of the ASCII codes of its characters is equal to n .

Input

There are multiple test cases. The first line of the input contains an integer T ($1 \leq T \leq 5 \times 10^3$), indicating the number of test cases. For each test case:

The only line contains an integer n ($1 \leq n \leq 10^7$).

It is guaranteed that the sum of n over all test cases does not exceed 10^7 .

Output

For each test case:

- If it is possible to construct a string consisting only of lowercase English letters whose ASCII sum is equal to n , first output **Yes** in one line. Then output a second line containing such a string.
- Otherwise, if it is impossible to do so, just output **No** in one line.

Example

standard input	standard output
3	Yes
2257	greetingsfromprofchen
2269	Yes
96	welcometocuhkshenzhen
	No

Note

Below is the ASCII code table for lowercase English letters:

Letter	ASCII	Letter	ASCII	Letter	ASCII
a	97	j	106	s	115
b	98	k	107	t	116
c	99	l	108	u	117
d	100	m	109	v	118
e	101	n	110	w	119
f	102	o	111	x	120
g	103	p	112	y	121
h	104	q	113	z	122
i	105	r	114		