CODEFORCES β
Sponsored by Telegram

🇬🇧 🇷🇺
Enter | Register

HOME   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   CANADA CUP 🏆   SECTIONS

PROBLEMS   SUBMIT   STATUS   STANDINGS   CUSTOM TEST

A. Collecting Beats is Fun

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Cucumber boy is fan of Kyubeat, a famous music game.

Kyubeat has 16 panels for playing arranged in 4×4 table. When a panel lights up, he has to press that panel.

Each panel has a **timing** to press (the preffered time when a player should press it), and Cucumber boy is able to press at most k panels in a time with his one hand. Cucumber boy is trying to press all panels in perfect timing, that is he wants to press each panel exactly in its preffered time. If he cannot press the panels with his **two hands** in perfect timing, his challenge to press all the panels in perfect timing will fail.

You are given one scene of Kyubeat's panel from the music Cucumber boy is trying. Tell him is he able to press all the panels in perfect timing.

Input

The first line contains a single integer k ($1 \le k \le 5$) — the number of panels Cucumber boy can press with his one hand.

Next 4 lines contain 4 characters each (digits from 1 to 9, or period) — table of panels. If a digit i was written on the panel, it means the boy has to press that panel in time i. If period was written on the panel, he doesn't have to press that panel.

Output

Output "YES" (without quotes), if he is able to press all the panels in perfect timing. If not, output "NO" (without quotes).

Examples

input
1 .135 1247 3468 5789
output
YES

input
5 ..1. 1111 ..1. ..1.
output
YES

input
1 .... 12.1 .2.. .2..
output
NO

Note

In the third sample boy cannot press all panels in perfect timing. He can press all the panels in timing in time 1, but he cannot press the panels in time 2 in timing with his two hands.