

Problem E: Mike's Puzzle 3.0

Description

We all know Mike loves puzzles. We also know that some people love Mike, and some hate him. Love him or hate him, he is getting better and better in inventing new puzzles.

One day during the quarantine, Mike decided to use his puzzles-making time to think about COVID-19 and viruses. He was thinking of tracking a group of people for a period of one month. In particular, he was interested to ascertain if two individuals had a “Risky Contact” when the contact scores (measured in days) between them are known. Mike defines a *risky contact* between two individuals when there is less than 14 days of contact between the two.

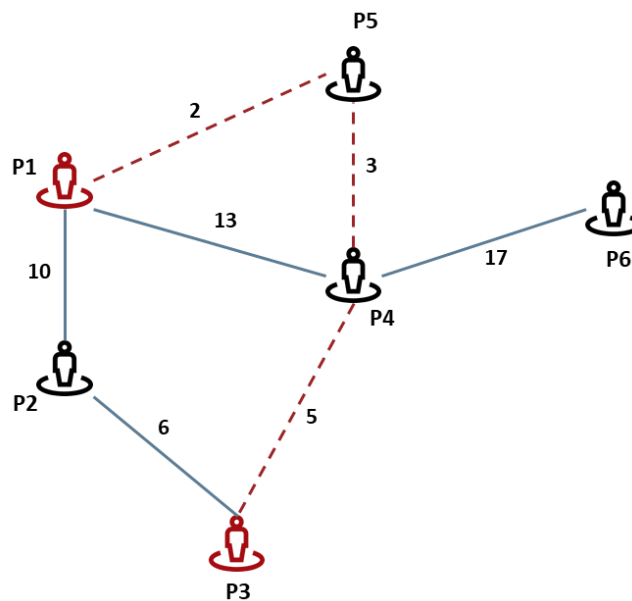


Figure 1

	P1	P2	P3	P4	P5	P6
P1	0	10	0	13	2	0
P2	10	0	6	0	0	0
P3	0	6	0	5	0	0
P4	13	0	5	0	3	17
P5	2	0	0	3	0	0
P6	0	0	0	17	0	0

Figure 2

For instance, in **Figure 1** above, there is a risky contact between Person 1 (P1) and Person 3 (P3) because there are $2 + 3 + 5 = 10$ days of contact between them. Also, there is no risky contact between Person 4 (P4) and Person 6 (P6). The contacts data in **Figure 1** can be represented using **Figure 2**.

Input

The first line in the input consists of an integer ($5 \leq N \leq 1000$) specifying the total number of people being tracked. The second line contains two numbers ($1 \leq \text{FP}, \text{SP} \leq N$) specifying the two people (first person, second person) that Mike wishes to determine if had a risky contact or not. The following N lines contain the contact details. Each line corresponds to contacts made by a single person. Each contact row contains N numbers (each as 0 when there is no contact or positive number less than 31 specifying the contact score in days) corresponding to contacts made by the current person to the rest of the people. The contact a person makes to himself/herself is ignored and set at zero. The data in **Test 1** correspond to the contacts in in **Figure 1**.

Output

Your program should print “YES” without quotes if the two people had a risky contact or “NO” otherwise.

NB: Kindly note that your solution will be run at least five times. Each time, it will be tested against a different set of input. The first few test cases are given below to help you check your solution. The remaining tests can be seen from the contest page for this problem or the results page after you submit your solution.

Test 1

Input	Output
6 1 3 0 10 0 13 2 0 10 0 6 0 0 0 0 6 0 5 0 0 13 0 5 0 3 17 2 0 0 3 0 0 0 0 0 17 0 0	YES

Test 2

Input	Output
6 4 6 0 10 0 13 2 0 10 0 6 0 0 0 0 6 0 5 0 0 13 0 5 0 3 17 2 0 0 3 0 0 0 0 0 17 0 0	NO