Problem A
Dr. Pill Popper
Time limit: 2 seconds

Dr. Pill Popper has many patients for whom he prescribes medication. Often, a patient's needs change, and their daily dosage must be adjusted. Frequently, this is just a matter of increasing or decreasing the number of pills a patient takes from their current supply.

For example, if Jerry is currently taking 10mg pills, and Dr. Pill Popper wants to increase his daily dosage to 30mg, Jerry can simply take three 10mg pills per day instead of getting a brand-new prescription. However, this assumes Jerry has a large enough supply of 10mg pills on hand to last the required duration. Conversely, if the doctor wants to decrease Jerry's dosage to 5mg per day, or change it to 15mg, a new prescription is required because Dr. Pill Popper does not allow patients to cut pills, and there is no way to achieve those totals using only whole 10mg pills. If the doctor stops the medication entirely (a new dosage of 0mg), the patient simply takes zero pills, and no new prescription is needed.

To help Dr. Pill Popper manage his meticulous records, write a program to determine if a patient needs a new prescription. A new prescription is required if the new daily dosage cannot be formed using a whole number of the patient's current pills, or if the patient's current inventory cannot sustain the daily dosage for the full duration of the prescription.

Input

Input consists of a single line containing four integers p n d t, where p $(1 \leq p \leq 1\,000)$ specifies the patient's current single pill size in mg, n $(0 \leq n \leq 180)$ specifies the number of pills the patient currently has on hand, d $(0 \leq d \leq 1\,000)$ specifies the new required dosage in mg, and t $(1 \leq t \leq 90)$ specifies the number of days the patient must take this new dosage.

Output

Output a single line containing the word `yes` if Dr. Pill Popper must write a new prescription for the patient, or `no` if no new prescription is needed.

Sample Input 1	Sample Output 1
`10 100 30 10`	`no`

Sample Input 2	Sample Output 2
`10 100 5 30`	`yes`

Sample Input 3	Sample Output 3
`10 100 50 25`	`yes`

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