AlphaBit Coding Challenge

Problem 5: Always Late

Statement

Yanis and Aymen are roommates, they need to wake up early every morning to go to school. However, Aymen always fail to wake up in time, and Yanis just hate waiting for him, so whenever Aymen wakes up late, Yanis go out before him and catch the train.

Fortunately, Aymen owns a car, so whenever Yanis go catch a train before him, he wakes up and drive with his car to school.

Although Yanis hates waiting for Aymen, he is a good friend of him, so whenever Aymen start driving his car, he calls Yanis and ask him to get off the train in the nearest station so that he can catch him up and go to school together.

Still, Yanis might need to wait for Aymen again in a train station ! Even if it's inevitable, can you help Yanis to choose the right train station to get off the train, where the wait time is minimal ?

Input

1st Line contains 4 space separated integers : Number of train stations N , Train speed (km/h) T, Car speed (km/h) C, Delay (minutes) D.

The next N lines: each line i contains the distance between the departure and the train station i.

Output

Number of the station i that Yanis needs to get off the train in.

Example

Input	Output
5 80 120 20 15 45 70 95 125	3