A. Devu, the Singer and Churu, the Joker

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

Devu is a renowned classical singer. He is invited to many big functions/festivals. Recently he was invited to "All World Classical Singing Festival". Other than Devu, comedian Churu was also invited.

Devu has provided organizers a list of the songs and required time for singing them. He will sing n songs, i^{th} song will take t_i minutes exactly.

The Comedian, Churu will crack jokes. All his jokes are of 5 minutes exactly.

People have mainly come to listen Devu. But you know that he needs rest of 10 minutes after each song. On the other hand, Churu being a very active person, doesn't need any rest.

You as one of the organizers should make an optimal schedule for the event. For some reasons you must follow the conditions:

- The duration of the event must be no more than d minutes;
- Devu must complete all his songs;
- With satisfying the two previous conditions the number of jokes cracked by Churu should be as many as possible.

If it is not possible to find a way to conduct all the songs of the Devu, output -1. Otherwise find out maximum number of jokes that Churu can crack in the grand event.

Input

The first line contains two space separated integers n, d $(1 \le n \le 100;\ 1 \le d \le 10000)$. The second line contains n space-separated integers: $t_1, t_2, ..., t_n$ $(1 \le t_i \le 100)$.

Output

If there is no way to conduct all the songs of Devu, output -1. Otherwise output the maximum number of jokes that Churu can crack in the grand event.

Examples

input
3 30 2 2 1
output
5

input
3 20 2 1 1
output
-1

Note

Consider the first example. The duration of the event is 30 minutes. There could be maximum 5 jokes in the following way:

- First Churu cracks a joke in 5 minutes.
- Then Devu performs the first song for 2 minutes.

- Then Churu cracks 2 jokes in 10 minutes.
- Now Devu performs second song for 2 minutes.
- Then Churu cracks 2 jokes in 10 minutes.
- Now finally Devu will perform his last song in 1 minutes.

Total time spent is $5 + 2 + 10 + 2 + 10 + 1 = 30$ minutes.

Consider the second example. There is no way of organizing Devu's all songs. Hence the answer is -1.