Problem

Read problem statements in <u>Hindi</u>, <u>Bengali</u>, <u>Mandarin Chinese</u>, <u>Russian</u>, and <u>Vietnamese</u> as well.

Finally, a COVID vaccine is out on the market and the Chefland government has asked you to form a plan to distribute it to the public as soon as possible. There are a total of N people with ages a_1, a_2, \ldots, a_N .

There is only one hospital where vaccination is done and it is only possible to vaccinate up to D people per day. Anyone whose age is ≥ 80 or ≤ 9 is considered to be *at risk*. On each day, you may not vaccinate both a person who is at risk and a person who is not at risk. Find the smallest number of days needed to vaccinate everyone.

Input

- ullet The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.
- ullet The first line of each test case contains two space-separated integers N and D.
- The second line contains N space-separated integers a_1, a_2, \ldots, a_N .

Output

For each test case, print a single line containing one integer — the smallest required number of days.

Constraints

- $1 \le T \le 10$
- $1 \le N \le 10^4$
- $1 \le D \le 10^5$
- $1 \leq a_i \leq 100$ for each valid i

Subtasks

Subtask #1 (100 points): original constraints

Sample 1:

Input	Output
2	10
10 1	3
10 20 30 40 50 60 90 80 100 1	
5 2	
9 80 27 72 79	

Explanation:

Example case 1: We do not need to worry about how the people are grouped, since only one person can be vaccinated in a single day. We require as many days as there are people.

Example case 2: There are two people at risk and three people who are not at risk. One optimal strategy is to vaccinate the two people at risk on day 1 and the remaining three on the next 2 days.

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