Practice problem - Count the Holidays ✔

Statement | Solution

A particular month has 30 days, numbered from 1 to 30.
Day 1 is a Monday, and the usual 7-day week is followed.
So day 2 is Tuesday, day 3 is Wednesday, and so on.

Every Saturday and Sunday is a holiday.
There are N festival days, which are also holidays.
Note that it is possible for a festival day to occur on a Saturday or Sunday.

You are given the dates of the festivals. Determine the total number of holidays in this month.

Input Format

- The first line of input contains a single integer T, denoting the number of test cases. The description of T test cases follows.
- The first line of each test case contains an integer N denoting the number of festival days.
- The second line of each test case contains N **distinct** space-separated integers $A_1, A_2, \ldots A_N$, denoting the festival days. Note that the A_i are **not necessarily given in sorted order.**

Output Format

For each test case, output a new line containing the total number of holidays.

Constraints

- $1 \leq N \leq 30$
- $1 \leq A_i \leq 30$ and All the A_i are distinct

Sample 1:

Input	Output
3 2 5 7 3 23 1 6 1 13	9 10 8

Explanation:

Test Case 1: Days $6, 13, 20$ and 27 are Saturdays, and days $7, 14, 21, 28$ are Sundays. The festivals fall on day 5 and day 7, but day 7 is already a Sunday. This gives us 9 holidays in total — days $5, 6, 7, 13, 14, 20, 21, 27, 28$.

Test Case 2: Days $6, 13, 20$ and 27 are Saturdays, and days $7, 14, 21, 28$ are Sundays. The festivals fall on day 1, day 6, and day 23. This gives us 10 holidays in total — days $1, 6, 7, 13, 14, 20, 21, 23, 27, 28$.

Test Case 3: Days $6, 13, 20$ and 27 are Saturdays, and days $7, 14, 21, 28$ are Sundays. The only festival is on day 13, which is already a holiday. This gives us 8 holidays in total — days $6, 7, 13, 14, 20, 21, 27, 28$.