

CS2810 OOAIA: A8

Design Deadline: March 9 at 16:40 on Moodle

Code Deadline: March 11 at 23:45 on Hackerrank

Hackerrank Link: <https://www.hackerrank.com/cs2810-ooaia-a8>

1 Problem Statement

The student secretary **Mr.Takeshi Kovacs**, of a college fest "Dazzling Festival of Science", has a big task of allotting coordinators in different domains. However, he is afraid that the work may not be efficiently done when two people become friends or a couple. While he can never exclude this possibility, he frames few rules for coordinators so that they are less likely to be best buddies.

1. Their age differs by at least 3 years
2. They are of the same gender ;)
3. They have different mother tongue
4. They have same CGPA (Since they are more likely to have competition between them)

So, to allocate any two coordinators, Mr.Kovacs has to make sure they satisfy at least one among the above rules. Find out the maximum number of coordinators he can select, given all this information.

2 Input Format

The first line consist of number of testcases (T). The first line of each testcase contain number of coordinators (N). Next, there will be N rows containing four space separated data-

1. Age
2. Gender
3. Mother tongue language
4. CGPA

3 Output Format

For each test case in the input, print the maximum number of eligible coordinators.

4 Constraints

Number of testcases, $T \leq 100$
Number of coordinators, $N \leq 500$
CGPA (non-negative integer), $C \leq 10$
Age (positive integer), $A \leq 100$
Gender (Character), $S \in \{M, F\}$
Mother tongue (String), M

5 Sample Testcase

Input:

```
2
4
19 M Marathi 8
17 M Telugu 10
20 M Telugu 5
19 F Telugu 6
```

```
8
16 M Bengali 8
27 F Telugu 8
19 M Telugu 9
17 M Marathi 8
22 M Marathi 7
17 M Telugu 9
18 F Bengali 9
23 M Bengali 7
```

Output:

```
3
7
```

6 Design submission format

For the design submission on Moodle, please submit tar.gz file named as your roll number.