ECOO '16 R1 P1 - Pass or Fail

Time limit: 30.0s **Memory limit:** 64M

In Ms. Echo's ICS4U class there are 4 components that determine a student's final grade: Tests, Assignments, Projects and Quizzes. She changes the weights on each of these components from year to year. Last year it was 20% tests, 20% assignments, 50% projects and 10% quizzes, but who knows what it will be this year? To pass the course, a student has to get 50% or more on the weighted average of all four components.

For example, last year Rosa got 98% on the tests, 85% on assignments, 76% on projects and 100% on the quizzes. That means her mark is:

$$98 \times 20\% + 85 \times 20\% + 76 \times 50\% + 100 \times 10\% = 19.6 + 17 + 38 + 10 = 84.6$$

Ms. Echo plays hardball – she never passes a student with less than 50%, even if that student got 49.9999%. All the marks are in for this year. How many students will be passing?

The input will contain 10 test cases.

The first line of each test case contains four integers W_T, W_A, W_P and W_Q separated by spaces, representing the weights of the four components ($0 \leq W_T, W_A, W_P, W_Q \leq 100$ and $W_T + W_A + W_P + W_Q = 100$).

This is followed by a line with a single integer N representing the number of students in the class ($1 \leq N \leq 35$). The next N lines each contain four integers T_i, A_i, P_i and Q_i, separated by spaces, representing the marks of an individual student (out of 100) for each component ($1 \leq i \leq N$ and $0 \leq T_i, A_i, P_i, Q_i \leq 100$). Your program should output a single integer for each test case representing the number of students who passed the course that year.

Note that the sample data below contains only 4 test cases but the test data will contain 10.

Sample Input

```
72 4 8 16
7
68 89 4 93
79 5 74 49
38 89 62 41
24 96 49 56
73 32 17 55
65 37 64 73
8 99 94 80
4 85 0 11
2
57 84 70 57
81 1 85 31
88 1 3 8
6
60 76 21 84
61 86 1 61
54 49 41 78
6 38 74 83
66 39 68 72
82 16 19 16
92 8 0 0
4
66 3 93 84
14 32 68 17
72 59 43 1
47 53 69 89
```

Sample Output

```
4
1
5
2
```