

There are four types of coins with value c_1, c_2, c_3 and c_4 , and there are only d_1, d_2, d_3 and d_4 number of these coins respectively. How many ways are there to obtain a value v by adding up these coins?

For example, if you have 3 \$1-coins, 2 \$2-coins, 3 \$5-coins, 1 \$10-coin, there are 4 ways to obtain \$10 from those coins:

$$10 = 1 + 1 + 1 + 2 + 5$$

$$10 = 1 + 2 + 2 + 5$$

$$10 = 5 + 5$$

$$10 = 10$$

Input

The input begins with an integer N (≤ 100) which indicates the number of test cases followed. Each of the following test cases begins with five positive integers c_1, c_2, c_3, c_4, q , where $1 \leq c_1 < c_2 < c_3 < c_4 \leq 1000$ and $q \leq 100$. It is then followed by q queries. Each query consists of 5 integers, d_1, d_2, d_3, d_4, v , where $1 \leq d_1, d_2, d_3, d_4, v \leq 10^5$.

Output

For each query from each test case, print out the number of way to obtain v by adding up d_1 c_1 -coins, d_2 c_2 -coins, d_3 c_3 -coins and d_4 c_4 -coins in a single line.

Sample Input

```
2
1 2 5 10 2
3 2 3 1 10
1000 2 2 2 900
10 20 30 40 1
100 100 100 100 101
```

Sample Output

```
4
27
0
```