

Felix and Leti are going to get married soon, everybody is preparing their gifts, but they have a big problem: the money, their budget is not very high. They would like to get a good restaurant, to “sleep” their first night in a nice hotel and to spend a marvellous honey-moon travelling around the world.

The best way to get the cheapest price is getting an all-included package, that is, we have to contract the travel, the restaurant and the hotel all together.

Is that possible?

We have to find the cheapest travel agency-restaurant-hotel combination. The problem is that not all the combinations are allowed.

## Input

Each test case has the following format:

- The first line consists of three integers  $T$ ,  $R$ ,  $H$  indicating the number of travel agencies, restaurants and hotels, respectively. Assume that  $T < 20$ ,  $R < 20$  and  $H < 20$ . Travel agencies, restaurants and hotels are numbered: 0, 1, 2, ...
- The next  $T + R + H$  lines are divided into three blocks:
  - The first block has  $T$  rows and  $R + 1$  columns. The first column are the travel agencies' offer prices for the world-tour. In the rest of columns, cell  $(i, j)$  is '0' if the travel agency  $(i)$  can be combined with the restaurant  $(j)$  and '1' if not.
  - The second block has  $R$  rows and  $H + 1$  columns. The first column are the restaurants' offer prices. In the rest of columns, cell  $(i, j)$  is '0' if the restaurant  $(i)$  can be combined with the hotel  $(j)$  and '1' if not.
  - The third block has  $H$  rows and  $T + 1$  columns. The first column are the hotels' offer prices. In the rest of columns, cell  $(i, j)$  is '0' if the hotel  $(i)$  can be combined with the travel-agency  $(j)$  and '1' if not.
- The input ends with an empty line.

## Output

For each test case the output should consist of a single line with the number of the travel agency ( $T$ ), restaurant ( $R$ ) and hotel ( $H$ ), and the cheapest total price ( $P$ ). This values should be output in the format:  $T R H : P$

If there is not any combination, the output should be a line with the text: 'Don't get married!'

If more than one possibility exists, you can output any of them.

## Sample Input

```
2 2 2
12 0 0
1 1 1
34 0 0
3 1 1
21 1 0
2 1 0
2 2 2
12 0 0
1 0 0
34 0 0
3 0 0
21 0 0
2 0 0
5 5 6
970 0 1 1 1 0
856 0 0 0 0 0
1290 1 0 0 1 0
1361 0 0 1 0 0
82 0 0 0 0 1
1182 0 0 0 1 1 0
450 0 1 1 0 0 1
895 0 0 1 0 1 1
1865 0 1 0 0 1 1
183 1 1 1 1 1 0
252 1 1 1 0 1
1813 1 0 0 1 1
1429 0 0 1 0 0
1522 1 1 1 0 0
1762 0 0 1 0 1
1946 0 1 0 0 0
```

## Sample Output

```
Don't get married!
1 1 1:6
4 1 3:2054
```