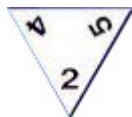


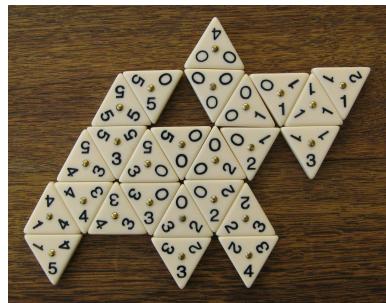
Problem A - Playing triominoes

Description

Triominoes is a variant of dominoes using triangular tiles. Each triomino is an equilateral triangle and has a unique combination of three numbers, although repeated numbers in the same tile are allowed. Each of these three numbers is located close to a vertex of the triangle, as shown in the figure below. The numbers in each tile range from 0 to 5. The numbers are sorted in non-decreasing order in the clockwise direction.



A tile can only be played if it is the first one or if there is a matching tile in the table, that is, both have a side with two matching numbers; see figure below.



In this exercise, the score in a triomino game is the sum of matching numbers. Given a set of tiles, the goal is to compute the maximum score that can be achieved with those tiles. Note that it may not be possible to have all tiles matched.

Input

Each test case contains n lines, each of which describes a tile as a sequence of three integer numbers in non-decreasing order.

Output

For each test case, print the maximum score that can be achieved.

Note: It would be wise to write a procedure that allows to print the current status of the game.

Constraints

- $n < 20$
-

Example

Example input:

```
2 3 5  
1 2 5  
2 5 5  
2 4 5  
4 5 5  
2 2 5
```

Example output:

```
40
```

Figure of triominoes by [Micha L. Rieser](#) - Own work, [CC BY-SA 3.0](#), [Link](#)