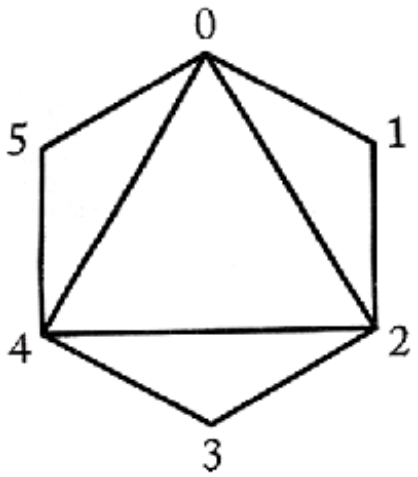
Polygon

We say that two triangles intersect if their interiors have at least one common point. A polygon is called convex if every segment connecting any two of its points is contained in this polygon. A triangle whose vertices are also vertices of a convex polygon is called an elementary triangle of this polygon. A triangulation of a convex polygon is a set of elementary triangles of this polygon, such that no two triangles from the set intersect and a union of all triangles covers the polygon. We are given a polygon and its triangulation. What is the maximal number of triangles in this triangulation that can be intersected by an elementary triangle of this polygon?

Example

Consider the following triangulation:



The elementary triangle (1,3,5) intersects all the triangles in this triangulation.

Task

Write a program that for each test case:

- reads the number of vertices of a polygon and its triangulation;
- computes the maximal number of triangles intersected by an elementary triangle of the given polygon;
- writes the result to standard output.

Input

The number of test cases *t* is in the first line of input, then *t* test cases follow separated by an empty line

In the first line of a test case there is a number *n*, 3 <= *n* <= 1000, which equals the number of vertices of the polygon. The vertices of the polygon are numbered from 0 to *n*-1 clockwise. The following *n*-2 lines describe the triangles in the triangulation. There are three integers separated by single spaces in the (*i*+1)-st line, where 1 <= *i* <= *n*-2. These are the numbers of the vertices of the *i*-th triangle in the triangulation.

Output

For each test case your program should produce one line with exactly one integer - the maximal number of triangles in the triangulation, that can be intersected by a single elementary triangle of the input polygon.

Example

Sample input:

```
1
6
0 1 2
2 4 3
0 5 4
2 4 0
```

Sample output:

```
4
```