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DAY HRS MIN SEC

June Circuits '20

LIVE

Jun 20, 2020, 09:30 PM IST - Jun 27, 2020, 09:30 PM IST

Number of triangles

Max. score: 100

You are given a polygon of N sides with vertices numbered from $1, 2, \ldots, N$. Now, exactly 2 vertices of the polygons are colored black and remaining are colored white. You are required to find the number of triangles denoted by A such that:

1. The triangle is formed by joining only the white-colored vertices of the polygon.
2. The triangle shares at least one side with the polygon.

Input format

- The first line contains t denoting the number of test cases.
- Next t lines contain three space-separated integers N, $B1$, and $B2$ where N is the number of sides in the polygon and $B1, B2$ denote the vertices that are colored black.

Output format

For each test case, print the answer A representing the number of triangles that can be formed with the given conditions in the problem statement.

Constraints

$1 \leq t \leq 100$

$5 \leq N \leq 10^5$

$1 \leq B1, B2 \leq N$

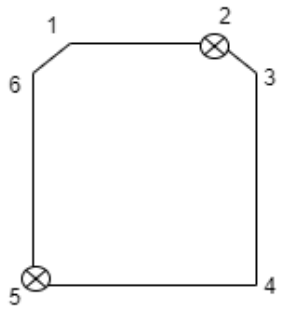
SAMPLE INPUT

```
1
6 2 5
```

SAMPLE OUTPUT

4

Explanation



The number of triangles which satisfy the property are 4 - △136 , △146 , △346 and △134

Time Limit:	1.0 sec(s) for each input file.
Memory Limit:	256 MB
Source Limit:	1024 KB
Marking Scheme:	Score is assigned if any testcase passes.
Allowed Languages:	Bash, C, C++, C++14, C++17, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, Java 14, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Python 3.8, Racket, Ruby, Rust, Scala, Swift-4.1, Swift, TypeScript, Visual Basic

CODE EDITOR

Save C (gcc 5.4.0)

```c
/*
// Sample code to perform I/O:
#include <stdio.h>

int main(){
    int num;
    scanf("%d", &num);                          // Reading input from STDIN
    printf("Input number is %d.\n", num);       // Writing output to STDOUT
}

// Warning: Printing unwanted or ill-formatted data to output will cause the test cases to fail
*/

// Write your code here

```

9

1:1 vscc

LIVE EVENTS

Provide custom input

COMPILE & TEST SUBMIT

Tip: You can submit any number of times you want. Your best submission is considered for computing total score.

Your Rating:

View all comments

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