

# Find Triangles

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Problem

Submissions

Leaderboard

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There's a big triangle. There are some number of points marked on each edge. In addition to those you should consider 3 vertices also as points. You are requested to find the number of triangles which can be created using above points as vertices.

## Input Format

Three numbers separated by space. These three numbers ( $n_1$   $n_2$   $n_3$ ) will represent the number of points marked on three edges. eg:  
3 4 2

## Constraints

 $0 \leq n_1, n_2, n_3 \leq 300$ 

## Output Format

Print the number of triangles

## Sample Input 0

```
0 1 1
```

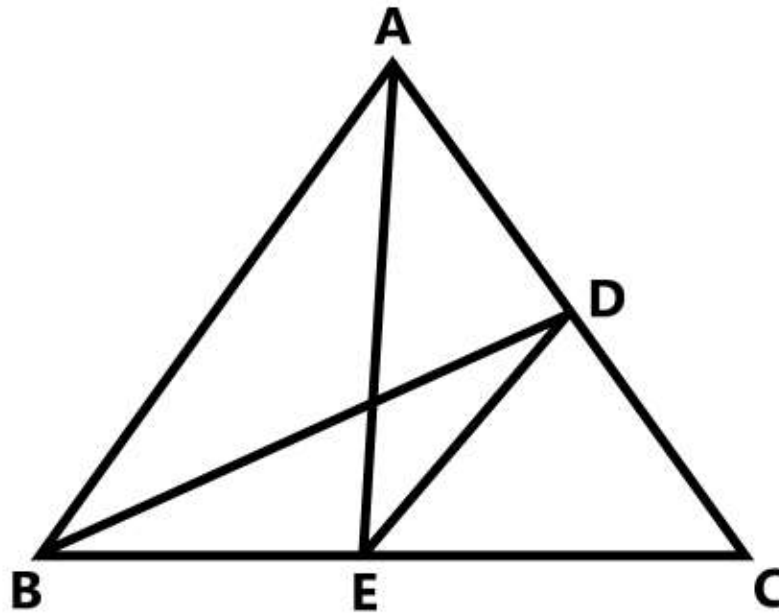
## Sample Output 0

8

## Explanation 0

As shown in the figure. Let's take ABC as the big triangle. Input is given as 0 1 1. That means two edges have one point each on them and other edge has no point on it.

So let's take point D is on AC and point E is on BC.



So we can create 8 different triangles using above points as vertices.

ABC

ABE

ABD

AEC

ADE  
BCD  
BDE  
CDE

So output is 8



Submissions: 38

Max Score: 80

Difficulty: Medium

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C++



```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
13
```

Line: 1 Col: 1

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