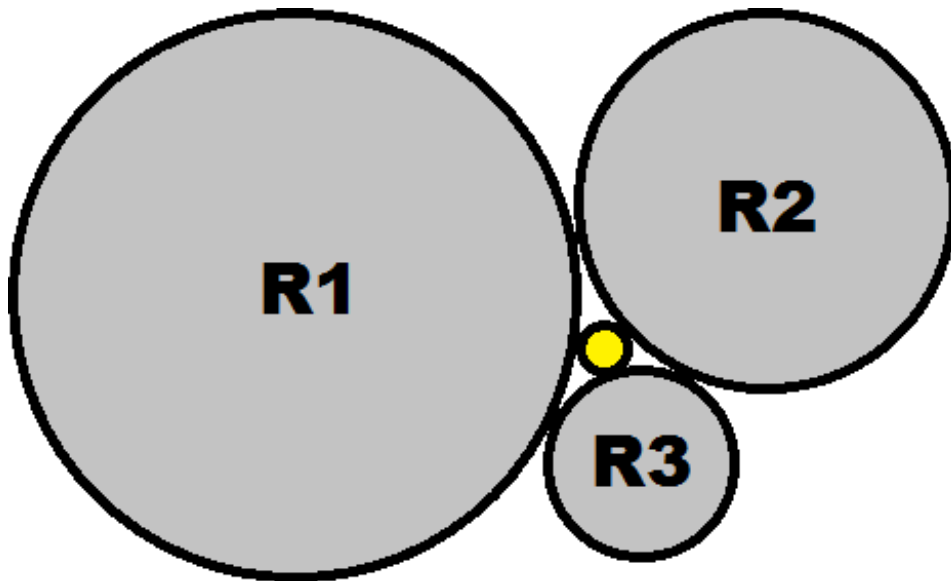


# Three Circle Problem (EASY)

Given 3 distinct circles with positive integer radius **R1**, **R2**, and **R3**, and arranged like in the picture below:



Now, your task is to compute radius of small circle that can be created like yellow circle in the picture above. All circles in the picture above tangent each other.

## Input

The first line in the input data, there is an integer **T** ( $0 < T \leq 10^3$ ) denoting number of test cases, than **T** lines follow.

For each lines, there are three integer **R1**, **R2**, and **R3**, ( $0 < \{R1, R2, R3\} < 10^9$ ) denoting radius of each circle like in the picture above.

## Output

For each test case, output radius of small circle that can be made, like in the picture above. Any output with absolute error less than  $10^{-6}$  is accepted.

## Example

**Input:**

```
3
1 1 1
10 10 10
23 46 69
```

**Output:**

```
0.154701
1.547005
6.000000
```

You can see my submission history and time record for this problem: [here](#)

**See also:** [Another problem added by Tjandra Satria Gunawan](#)