

Easy Calculation

Find x such that $Ax + B\sin(x) = C$.

Input

The first line denotes T(number of test cases). 3T integers follow denoting A,B and C for every test case. ($A \geq B > 0$). All Integers are less than 100000.

Output

T real numbers rounded to 6 digits one in each line.

Example

Input:

```
1  
1 1 20
```

Output:

```
19.441787
```