

## Sin Cos Problem

Given A and B, you have to determine the maximum value of the function :

$$F(\theta) = A \cdot \sin \theta + B \cdot \cos \theta$$

### Input

First line of input will contain the number of test cases,  $T \leq 2000$ . Then there follows T lines, each containing two integers A and B separated by a single space. A and B will fit in a signed 32bit integer.

### Output

For each case, print one line containing two single space separated real values rounded to two decimal places. The first one is the lowest non-negative value of  $\theta$  ( $\theta$  is in Radian) for which the  $F(\theta)$  gives maximum value and the second one is the maximum value.

Note: Pi is considered to be  $\arccos(-1)$ .

### Sample Input

```
4
1 1
-1 1
1 -1
-1 -1
```

### Sample Input

```
0.79 1.41
5.50 1.41
2.36 1.41
3.93 1.41
```

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Alternate Solution: Zobayer Hasan

