IIUPC 2012

Problem E: Sin Cos Problem

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

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

Input

First line of input will contain the number of test cases, **T ≤ 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 **θ** (**θ** is in **Radian**) for which the **F(θ)** gives maximum value and the second one is the maximum value.

Sample Input	Output for the Sample Input
4 **1 1** **-1 1** **1 -1** **-1 -1**	**0.79 1.41** **5.50 1.41** **2.36 1.41** **3.93 1.41**
Note : Pi is considered to be **acos(-1).**	
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Alternate Solution: Zobayer Hasan	