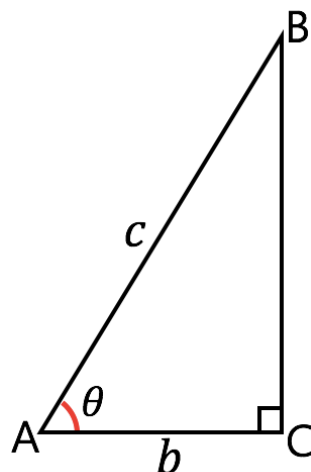


Right triangle 3



There is a right triangle $\triangle ABC$ where $\angle C = 90^\circ$. You are given c (the length of \overline{AB}) and b (the length of \overline{AC}). Please write a program that finds the size of the angle $\angle A$, in degrees.

Input

Your input consists of an arbitrary number of lines, but no more than 5,000. Each line consists of two integers b ($1 \leq b \leq 100$) and c ($b < c \leq 100$), separated by a space. The end of input is indicated by a line containing only the value -1 .

Output

For each input line, print a line that contains the size of the angle $\angle A$, in degrees. Print 5 digits (even if it is zero) after the decimal point. Your answer will be considered correct if and only if $|(your\ answer) - (our\ answer)| \leq 10^{-5}$.

Example

Standard input	Standard output
4 5	3.00000
13 57	55.49775
1 2	1.73205
-1	

Time Limit

1 second.