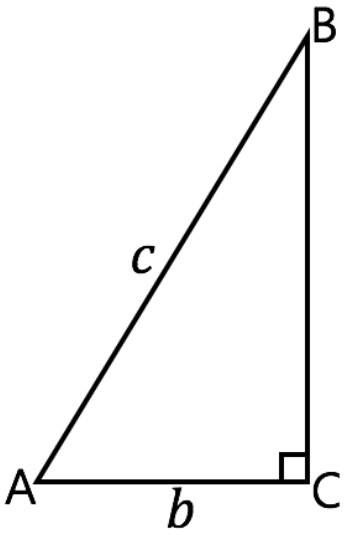
Right triangle 1



There is a right triangle ΔABC where $\angle C = 90°$. You are given c (the length of $\overline{AB}$) and b (the length of $\overline{AC}$). Please write a program that finds the length of $\overline{BC}$.

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 length of $\overline{BC}$. 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 13 57 1 2 -1	3.00000 55.49775 1.73205

Time Limit

1 second.