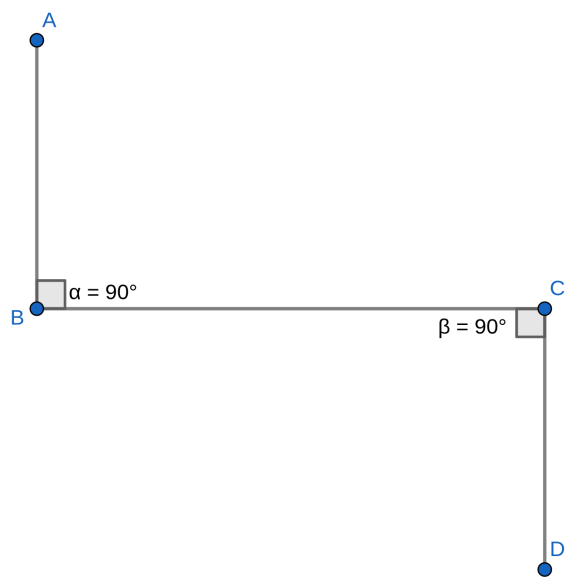


Cycling In Gully

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Our little boy Wakar has grown up. He is now in class Nine! Yesterday, he got a lesson about **distance** and **displacement**. Today is a holiday. So, in the early morning he took his cycle and went for a great leisure. There is a boring gully in his area. It is boring because the gully has so much turns. Blowing his hairs in the air, suddenly a problem clicked in his mind. He came home and searched something- The map of his area. He found it in his grandfather’s trunk. He saw the gully looked something like this shape-



He will be going from point A to D. He has the distance of \overrightarrow{AB} , \overrightarrow{BC} , \overrightarrow{CD} . So he want to measure his distance and displacement. Can you help him to measure the his **distance** and **displacement** ?

Input

There will be the values of \overrightarrow{AB} ($1 \leq AB \leq 10^7$), \overrightarrow{BC} ($1 \leq BC \leq 10^7$), and \overrightarrow{CD} ($1 \leq CD \leq 10^7$).

Output

You have to give output two numbers *distance* and *displacemet*. Print the output upto 10^{-6}

Example

standard input	standard output
4 10 3	17.000000 12.206556