

C

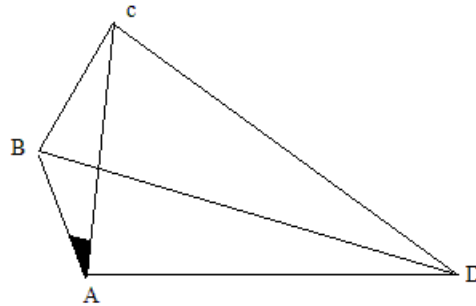
## Mr. X &amp; a puzzle paper

Time limit: 1 sec

Last time Mr. X opens a shop. One day he found a paper with a simple geometric shape and a question. The picture of paper is given bellow.

You know,  
 $\angle ACB$   
 $\angle ADB$   
 $\angle BDC$   
 $\angle BAD + \angle ACD$

Find,  
 $\angle BAC$



Now, he solve this problem for different values of  $\angle ACB$ ,  $\angle ADB$ ,  $\angle BDC$ ,  $\angle BAD + \angle ACD$ . But he is not sure about his answer. He knows you are a good programmer who loves geometry very much.

So, he asks you to write a code of this problem.

Input:

The first line contains test case T ( $T \leq 10000$ ).

Next line contains four integers  $\angle ACB$ ,  $\angle ADB$ ,  $\angle BDC$ ,  $\angle BAD + \angle ACD$ .

$0 < \angle ACB, \angle ADB, \angle BDC, \angle BAD + \angle ACD < 90$

$0 < \angle ADB + \angle BDC \leq 90$

$0 < \angle ACB + \angle BAD + \angle ACD \leq 180$

Output:

Output  $\angle BAC$  up to 4 digits after decimal point. (Use %.4lf to print the result)

You can assume that all the inputs are valid.

Input	Output
1 10 20 30 145	15.0000