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The Virtual Learning Environment for Computer Programming

## Angle

X86192\_en

At the end of each stage of the video game, the ship controlled by the player will face an enemy boss which occupies a large part of the screen. The ship can shoot along any integer angle (in degrees) away from the vertical axis, as shown in the figure. Compute the maximum integer angle such that the ship will hit the boss if it fires in that direction.



## Input

The input consists of several test cases. Each test case consists of an integer height  $1 \le H \le 1000$ , corresponding to the vertical distance from the ship to the boss, and an integer width  $1 \le W \le 1000$ , corresponding to the horizontal extension of the boss from the vertical axis.

For each test case, a number on a single line representing the maximum integer angle such

### Output

Sample input 1	Sample output 1
1 1	45
Sample input 2	Sample output 2
3 4	53
Sample input 3	Sample output 3
26 15 15 26	29 60
19 20	

#### **Problem information**

that the ship will hit the boss.

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