Find Angle MBC

42/115 challenges solved

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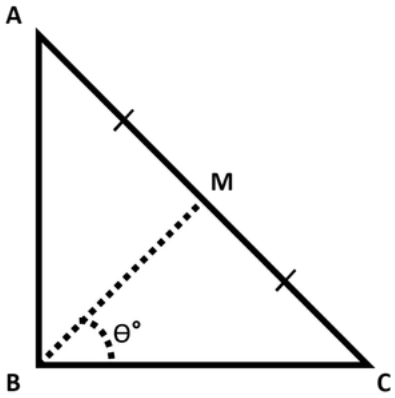

ABC is a right triangle, 90° at B.

Therefore, $\angle ABC = 90^\circ$.

Point M is the midpoint of hypotenuse AC.

You are given the lengths AB and BC.

Your task is to find $\angle MBC$ (angle θ°, as shown in the figure) in degrees.

Input Format

The first line contains the length of side AB.

The second line contains the length of side BC.

Constraints

- $0 < AB \leq 100$
- $0 < BC \leq 100$
- Lengths AB and BC are natural numbers.

Output Format

Output $\angle MBC$ in degrees.

Note: Round the angle to the nearest integer.

Examples:

If angle is 56.5000001°, then output **57°**.

If angle is 56.5000000°, then output **57°**.

If angle is 56.4999999°, then output **56°**.

$0^\circ < \theta^\circ < 90^\circ$

Sample Input

```
10
10
```

Sample Output

```
45°
```

Change Theme Language Python 3

```
# Enter your code here. Read input from STDIN. Print output to STDOUT
import math

ab = float(input())
bc = float(input())

# In a right triangle, since M is the midpoint, AM=BM=CM
# Therefore angle BMC is equal to angle MCB
angle = math.atan(ab/bc)
print(f"{round(math.degrees(angle))}{chr(176)}")
```

EMACS Line: 10 Col: 49

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42/115 challenges solved.

37%

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5

Compiler Message

```
Success
```

Input (stdin) Download

```
1 10
2 10
```

Expected Output Download

```
1 45°
```