Jumbled Compass

Problem ID: compass
CPU Time limit: 1 secon
Memory limit: 1024 MB
Difficulty: 1.9

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Source: Nordic Collegiate Programming Contest (N 2016

Jonas is developing the JUxtaPhone and is tasked with animating the compass needle. The API is simple: the compass needle is currently in some direction (between 0 and 359 degrees, with north being 0, east being 90), and is being animated by giving the degrees to spin it. If the needle is pointing north, and you give the compass an input of 90, it will spin clockwise (positive numbers mean clockwise direction) to stop at east, whereas an input of -45 would spin it counterclockwise to stop at north west.

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The compass gives the current direction the phone is pointing and Jonas' task is to animate the needle taking the *shortest path* from the current needle direction to the correct direction. Many `if`s, moduli, and even an arctan later, he is still not convinced his `minimumDistance` function is correct; he calls you on the phone.

Input

The first line of input contains an integer n_1 ($0 \leq n_1 \leq 359$), the current direction of the needle. The second line of input contains an integer n_2 ($0 \leq n_2 \leq 359$), the correct direction of the needle.

Output

Output the change in direction that would make the needle spin the shortest distance from n_1 to n_2. A positive change indicates spinning the needle clockwise, and a negative change indicates spinning the needle counter-clockwise. If the two input numbers are diametrically opposed, the needle should travel clockwise. I.e., in this case, output 180 rather than -180.

Sample Input 1

```
315
45
```

Sample Output 1

```
90
```

Sample Input 2

```
180
270
```

Sample Output 2

```
90
```

Sample Input 3

```
45
270
```

Sample Output 3

```
-135
```