

4181 All There

Stopping at a red traffic light one day you notice that the mileage indicators in your car show the interesting pair of numbers 12345.6 and 123.4. The odometer at the top shows 6 digits while the trip meter at the bottom shows 4 digits.



Both meters count up as the car moves. The odometer cannot be reset; therefore, it shows the mileage since the car was manufactured. You can reset the trip meter as often as you want; if you don't reset it will keep counting up, if you reset it will start counting up again from 000.0.

Your mind wanders and you begin to wonder just how far you have to drive so that the two meter values together consist of all ten digits from 0 to 9. Considering that both meters will eventually wrap around and that the trip meter can be reset at any time you pull out your laptop and start to program. Will you make it before the light turns green?

Input

Input to your program consists of lines with two numbers each, separated by white space. To make things easy the numbers are positive integers of at most 6 and 4 digits, respectively; the first integer on a line represents the odometer and the second integer represents the trip meter, both in tenths of miles.

Output

For each input line there is one output line which contains an integer which represents the distance (in tenths of a mile) which needs to be driven so that at the end the odometer and trip meter together show all ten digits.

Sample Input

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123456 1234
999999 9999
65432 1
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Sample Output

500
12346
1802