

Problem R: Vending Machine

Source: `vending.{c,cpp,java}`

Input: `console {stdin,cin,System.in}`

Output: `console {stdout,cout,System.out}`

The items sold by a vending machine sell for a whole number of dollars. The vending machine returns change in the form of one-dollar coins, five-dollar bills, and ten-dollar bills. For any particular purchase, the number of one-dollar coins returned is less than 5; and the number of five-dollar bills is less than 2.

Input

The input consists of a number of test cases. For each test case, there will be one line of input, containing two integers: the purchase price of an item and the amount entered into the vending machine by the customer. The two integers are separated by one blank space. The input is terminated by a line containing two zeros, this line will not be processed.

Output

For each test case, there will be one line of output, consisting of: the case number, the amount of the change, and the number of ten- and five-dollar bills and one-dollar coins returned by the vending machine for the particular purchase. The format is illustrated by the sample output. In places where the output shows a blank space, exactly one blank space is required.

Sample Input

```
72 100
37 200
5 50
0 0
```

Sample Output

```
Case 1: 28 = 2 * 10 + 1 * 5 + 3 * 1
Case 2: 163 = 16 * 10 + 0 * 5 + 3 * 1
Case 3: 45 = 4 * 10 + 1 * 5 + 0 * 1
```