Sum of Digits

Majid is a 3rd-grade elementary student and quite well in mathematics. Once, Majid's teacher asked him to calculate the sum of numbers 1 through n.

Majid quickly answered, and his teacher made him another challenge. He asked Majid to calculate the sum of the digits of numbers 1 through n.

Majid did finally find the solution. Now it is your turn, can you find a solution?

Input

Two space-separated integers $0 <= a <= b <= 10^9$.

Program terminates if a and b are -1.

Output

The sum of the digits of numbers a through b.

Example

Input:
1 10
100 777
-1 -1

Output:
46
8655