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CPCRC1C - Sum of Digits

#dynamic-programming (/problems/tag/dynamic-programming)

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 $0 <= a <= b <= 10^9$.
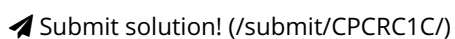
Program terminates if a and b are -1.

Output

The sum of the digits of numbers a through b.

Example

```
Input:
1 10
100 777
-1 -1

Output:
46
8655
```

Submit solution! (/submit/CPCRC1C/)

	Submit solution! (/submit/CPCRC1C/)
Added by:	Tii (/users/mor_2009)
Date:	2010-10-25
Time limit:	0.219s
Source limit:	50000B
Memory limit:	1536MB
Cluster:	Cube (Intel G860) (/clusters/)
Languages:	All except: ASM64
Resource:	http://cs.ikiu.ac.ir/cms/icpc/train contest/86-contest1

Vote requirements

- ✔ be spoj user for at least 5 days
- ✔ solve at least 15 problems
- ✘ solve this problem

Own tags

#	#	#	#	#	#	#	#	#	#	#
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Tag name   Ac

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herkeyrefugee (/users/herkeyrefugee): 2017-11-22 07:51:05
Good one pure math!!Finally AC

gourav_123 (/users/gourav_123): 2017-09-27 11:06:21
wooooo !!!!! learned a new thing "DIGIT DP" :-)
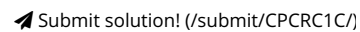
kshubham02 (/users/kshubham02): 2017-08-25 08:59:32
Do with digit DP

anubhav1772 (/users/anubhav1772): 2017-07-13 14:54:45
I don't know why I'm getting WA though my code passes every test case....those present on spojtoolkit as well...
Edit : Finally got AC on 4th attempt...a silly mistake cost me 3 WA

Last edit: 2017-07-13 15:31:23

rohit659 (/users/rohit659): 2017-06-28 21:11:12

Very Nice Problem!!
learned new thing :-)

mddaud001 (/users/mddaud001): 2017-06-24 00:32:54
Digit Dp :)

nikhil_ankam (/users/nikhil_ankam): 2017-05-30 08:54:06
Even if you solve this problem without dp, just look for "Digit Dynamic Programming" and you will learn
something good. Have fun:)

rishi_07 (/users/rishi_07): 2017-04-02 01:12:35
Great one! AC in one go!

hasan356 (/users/hasan356): 2017-03-26 22:07:43
Learned new thing!!

jawad_cs (/users/jawad_cs): 2017-03-25 08:12:12
i think the answer for test case 100 777 must be 8107 instead of 8655
please correct me if i,m wrong

Leave a Comment

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Notes:
1. Don't post any source code here.
2. Please be careful, leave short comments only. Don't spam here.
3. For more discussion (hints, ideas, solutions) please visit our forum (/forum).
4. Authors of the problems are allowed to delete the post and use html code here (e.g. to provide some useful links).

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