

A. Buy a Shovel

time limit per test: 1 second
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

Polycarp urgently needs a shovel! He comes to the shop and chooses an appropriate one. The shovel that Polycarp chooses is sold for k burles. Assume that there is an unlimited number of such shovels in the shop.

In his pocket Polycarp has an unlimited number of "10-burle coins" and exactly one coin of r burles ($1 \leq r \leq 9$).

What is the minimum number of shovels Polycarp has to buy so that he can pay for the purchase without any change? It is obvious that he can pay for 10 shovels without any change (by paying the required amount of 10-burle coins and not using the coin of r burles). But perhaps he can buy fewer shovels and pay without any change. Note that Polycarp should buy at least one shovel.

Input

The single line of input contains two integers k and r ($1 \leq k \leq 1000$, $1 \leq r \leq 9$) — the price of one shovel and the denomination of the coin in Polycarp's pocket that is different from "10-burle coins".

Remember that he has an unlimited number of coins in the denomination of 10, that is, Polycarp has enough money to buy any number of shovels.

Output

Print the required minimum number of shovels Polycarp has to buy so that he can pay for them without any change.

Examples

input
117 3
output
9
input
237 7
output
1
input
15 2
output
2

Note

In the first example Polycarp can buy 9 shovels and pay $9 \cdot 117 = 1053$ burles. Indeed, he can pay this sum by using 10-burle coins and one 3-burle coin. He can't buy fewer shovels

Codeforces Round #377 (Div. 2)

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Submit?

Language: Microsoft Visual C++ 2010 ▼

Choose file: Choose File No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.



Submit

→ Problem tags

brute force constructive algorithms
math

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 

without any change.

In the second example it is enough for Polycarp to buy one shovel.

In the third example Polycarp should buy two shovels and pay $2 \cdot 15 = 30$ burles. It is obvious that he can pay this sum without any change.

[Codeforces](#) (c) Copyright 2010-2017 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Mar/06/2017 05:17:37^{UTC-8} (c4).
Desktop version, switch to [mobile version](#).