

Program Name: numbers.cpp

Input File: numbers.dat

A “psychic network” company wants you to write a program that can tell someone if it is “in the stars” that two people marry. Each person is given a score that is computed by summing up the digits of their birthday (formatted as MMDDYYYY). The match measurement between the two people is measured by computing the difference between the two people’s scores. The smaller the absolute value of the difference, the better the match. (Okay, so there is nothing scientific about this, but if it will sell calls for \$1.99/minute, the company wants to do it.)

For example, for the birth dates 06141965 and 07031969, the match measurement is computed as follows:

Score #1: 06141965 \ $0+6+1+4+1+9+6+5 = 32$

Score #2: 07031969 \ $0+7+0+3+1+9+6+9 = 35$

Match measurement \ absolute value $(32 - 35) = 3$

The following rating shows an even closer match.

Score #1: 05031944 \ 26

Score #2: 06221943 \ 27

Match measurement \ absolute value $(26-27) = 1$

Input

Input to your program will consist of a series of birth date pairs. The first date in the pair is in columns 1-8. There is a blank in column 9. The second date in the pair is in columns 10-17. There is no other input on the input line.

WARNING: Some compilers will read integers with leading zeroes as octal (base eight) numbers instead of as decimal (base ten) numbers. Be careful.

Output

For each birth date pair, your program is to print the absolute value (a non-negative number) of the match measurement. The match measurement should start in column 1 and be on a line by itself.

Example: Input file

06141965 07031969

05031944 06221943

10111999 10112000

Output to screen

3

1

26