



Problem F. Digit Dial Equation

TimeLimit: 1 second
MemoryLimit: 256 megabytes

You are given a string representing a mathematical equation in the format `ABC/DEF=G`. Each character represents a single digit from 0 to 9.

You can perform an operation on any of the seven digits. One operation consists of changing a digit to `digit+1` or `digit-1`. The digits are arranged in a circular dial:

- Incrementing 9 results in 0.
- Decrementing 0 results in 9.

The equation is considered **valid** if it satisfies the following conditions:

- The denominator `DEF` is not equal to 0 (e.g., 000 is not allowed).
- The result of integer division `ABC / DEF` exactly equals `G`. (Note: Just like in C++ or Python `//`, integer division means you divide the numbers and drop the decimal. For example, 150/040 is 3.)

Your goal is to find the minimum number of change to make the equation true.

Input

A string of 9 characters in the format `ABC/DEF=G`.

Output

An integer: the minimum operation needed.

Examples

standard input	standard output
100/020=5	0
010/003=4	1
099/001=0	1