

Combination Lock

Phuc has a combination lock which is represented by n rotating disks with digits from 0 to 9 written on them. He has to turn some disks so that the combination of digits on the disks forms a secret combination. In one move, he can rotate one disk one digit forwards or backwards. In particular, in one move he can go from digit 0 to digit 9 and vice versa. What minimum number of actions does he need for that?

Input

Input description...

Output

Output description...

Example

Input:

5

82195

64723

Output:

13