

Real programming really easy this time: Day 2

1. Hitachi, a leading developer of storage devices want to increase the efficiency of storing time of these devices. Suppose you have a number (say 14) is stored at a particular location of device and you want to store new number (say 31) replacing old one. Rather than changing all the bits, they want the actual bits to be changed. Design a program that takes first argument as old number A, second argument as new number B and give output as the no of bits required to convert number A into number B. Take number as an integer

For example input : 9, 8

Output : 1 // since you need to change only least significant bit.

2. A special day is day if date on this day is like 11/11/11 or 9/10/11 or 13/12/11. You will be given day, month and year as integer, design a method to find if the day whose date is given is special day or not. Your program will take three arguments in order day month and year. And should print message if it is special day or not.
3. Being a computer programmer a cellular company wants you to write a program to encrypt the mobile numbers of their customers. The simple encryption algorithm that they want is given below:

- a. Reverse the number.
- b. Increase each digit by 1.

For example

Input: 9828598285

Output: 6939069390

Explanation: reverse of input is 5828958289. Lets increase each digit now 5 by 6 ; 8by 9; 2 by 3 ; 8 by 9 ; 9 by 0 and so on..

" //corresponding to "hello"

Output: "hello"

4.): You have learned about the GP (geometric progression) and AP. A sequence is said to be in G.P if it is in the following form

$$a + (a+k) + (a+2k) + (a+3k) + \dots$$

while a sequence is said to be in A.P. will be called in G.P if it is in the following form

$$a + a*k + a*k*k + a*k*k*k + \dots$$

As a Real Programmer make a program to tell whether they are in GP or they are in AP . If the sequence is not in any sequence your program should printf "Neither in AP nor in GP"



5. If you remember that early phone devices come with given key pad. In order to type some textual information you have to press some key multiple times. For example if you want to type "c" you will press "222". There is a case in Indian Army in which they got some videos captured by hidden cameras in

which terrorist are sending some text messages. An observer of the video while watching make a strings of numbers like "222333" (meaning that 2 is pressed 3 times and 3 is pressed times). Being a real programmer your task is to take that streams of numbers and return the text.

For example

Input "4433555555666"