## Program1:

Given two given numbers x and y where 1 <= x < y, find all the numbers which are perfect square between x and y (x and y inclusive). Take input from STDIN and display output to STDOUT without any additional text.

Example: Input: x=9 b=25 Output: 9 16 25

## **Program2:**

Write a program to find GCD of its digits of a given number n. Take input from STDIN and display output to STDOUT without any additional text.

Example: Input: 523
Output: 1
Input: 428
Output: 2

#### **Program3:**

Write a program to find the sum of binomial coefficient of n terms like  ${}^{n}C_{0} + {}^{n}C_{1} + {}^{n}C_{2} + \dots + {}^{n}C_{n-1} + {}^{n}C_{n}$  where n<=100

Take input n from STDIN and display output sum to STDOUT without any additional text.

#### Program4:

Write a C program to remove consonants from a String. Take input from command line argument.

Example:

Input:

Academy123

Output:

cdmy123

Test Cases:

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- 1. VALID INPUT:
- a) Only one argument will be given as input.
- 2. INVALID inputs:
- a) No argument
- b) Two or more than two arguments.
- 3. You should generate output as follows:
- a) Print the string to the STDOUT.
- b) If error print 'ERROR' to the STDOUT without any additional text.

# Program5:

Encode a given string by the number of consecutive occurrence followed by the character. If number of occurrence is only one then keep it as it is. Take input from command line argument.

| Example: |
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| Input:   |
| abbddebb |
| Output:  |
| a2b2de2b |

### Test Cases:

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- 1. VALID INPUT:
- a) Only one argument will be given as input.
- 2. INVALID inputs:
- a) No argument
- b) Two or more than two arguments.
- 3. You should generate output as follows:
- a) Print encode string to the STDOUT.
- b) If error print 'ERROR' to the STDOUT without any additional text.