1) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

String s=sc.next();

while(s.length()>0){

char ch=s.charAt(0);

int len=s.length();

s=s.replace(ch+ "","");

int len1=s.length();

int fre=len-len1;

System.out.println(ch+" "+fre);

}

}

}

2) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

String s = sc.nextLine();

int vowels = 0;

int consonants = 0;

int digits = 0;

int special = 0;

s=s.toLowerCase();

for (int i = 0; i < s.length(); i++) {

char ch = s.charAt(i);

if(ch>='a' && ch<='z'){

if(ch=='a'|| ch=='e'||ch=='i'||ch=='o'||ch=='u'){

vowels++;

}else{

consonants++;

}

}else if(ch>='0' && ch<='9'){

digits++;

}else{

special++;

}

}

System.out.println("vowels:" + vowels);

System.out.println("consonants:" + consonants);

System.out.println("digits:" + digits);

System.out.println("special characters:" + special);

}

}

3) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

String input = sc.nextLine();

if (input.matches("\\d+")) {

System.out.println("only digits");

} else {

System.out.println("no");

}

}

}

4) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

String input = sc.nextLine();

if (input.length() == 1 && Character.isLetter(input.charAt(0))) {

char ch = input.charAt(0);

if ("AEIOUaeiou".indexOf(ch) != -1) {

System.out.println("The Character " + ch + " is Vowel");

} else {

System.out.println("The Character " + ch + " is Consonant");

}

} else {

System.out.println("Invalid Input");

}

}

}

5) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

String name = sc.nextLine();

int[] marks = new int[5];

int total = 0;

for (int i = 0; i < 5; i++) {

marks[i] = sc.nextInt();

total += marks[i];

}

double average = total / 5.0;

String grade;

if (average == 100) {

grade = "S";

} else if (average >= 90) {

grade = "A";

} else if (average >= 80) {

grade = "B";

} else if (average >= 70) {

grade = "C";

} else if (average >= 60) {

grade = "D";

} else if (average >= 50) {

grade = "E";

} else {

grade = "Fail";

}

System.out.println("Name of the Student:" + name);

System.out.println("Total Mark:" + total);

System.out.println("Average Mark:" + average);

System.out.println("Grade Mark:" + grade);

}

}

6) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int dayNumber = sc.nextInt();

switch (dayNumber) {

case 1:

System.out.println("Monday");

break;

case 2:

System.out.println("Tuesday");

break;

case 3:

System.out.println("Wednesday");

break;

case 4:

System.out.println("Thursday");

break;

case 5:

System.out.println("Friday");

break;

case 6:

System.out.println("Saturday");

case 7:

System.out.println("Sunday");

break;

default:

System.out.println("Enter a valid Input");

}

}

}

7) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int a = sc.nextInt();

int b = sc.nextInt();

int c = sc.nextInt();

if (a > b) {

if (a > c) {

System.out.println("a is largest then b and c");

} else {

System.out.println("c is largest then a and b");

}

} else {

if (b > c) {

System.out.println("b is largest then a and c");

} else {

System.out.println("c is largest then a and b");

}

}

}

}

8) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int num1 = sc.nextInt();

int num2 = sc.nextInt();

char op = sc.next().charAt(0);

double result;

switch (op) {

case '+':

result = num1 + num2;

System.out.println("Addition of two number is " + result);

break;

case '-':

result = num1 - num2;

System.out.println("Subtraction of two number is " + result);

break;

case '\*':

result = num1 \* num2;

System.out.println("Multiplication of two number is " + result);

break;

case '/':

if (num2 != 0) {

result = (double) num1 / num2;

System.out.println("Division of two number is " + result);

} else {

System.out.println("Division by zero is not allowed");

}

break;

case '%':

if (num2 != 0) {

result = num1 % num2;

System.out.println("Modulo of two number is " + result);

} else {

System.out.println("Division by zero is not allowed");

break;

default:

System.out.println("Invalid Input");

}

}

}

9) Scanner sc = new Scanner(System.in);

int num = sc.nextInt();

if (num > 0) {

System.out.println("positive");

} else if (num < 0) {

System.out.println("negative");

} else {

System.out.println("zero");

}

10) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int num = sc.nextInt();

if (num >= 100 && num <= 999) {

int original = num;

int rev = 0;

while (num > 0) {

int digit = num % 10;

rev = rev \* 10 + digit;

num /= 10;

}

if (rev == original) {

System.out.println("palindrome");

} else {

System.out.println("not palindrome");

}

} else {

System.out.println("Invalid Input");

}

}

}

11) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int num = sc.nextInt();

String str = String.valueOf(num);

if (str.length() == 1) {

System.out.println("STDOUT");

} else {

char first = str.charAt(0);

char second = str.charAt(1);

System.out.println("" + second + first);

}

}

}

12) import java.io.\*;

import java.util.\*;

public class Solution {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int num = sc.nextInt();

int original = num;

int digits = String.valueOf(num).length();

int sum = 0;

while (num > 0) {

int digit = num % 10;

sum += Math.pow(digit, digits);

num /= 10;

}

if (sum == original) {

System.out.println("Yes");

} else {

System.out.println("No");

}

}

}