1.

import java.util.\*;

public class Bill

{

public static int meterReading(String in1, String in2, int in3)

{

int n1 = Integer.parseInt(in1.substring(5, in1.length()));

int n2 = Integer.parseInt(in2.substring(5, in2.length()));

int n = Math.abs((n2 - n1) \* in3);

return n;

}

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

String s1 = sc.nextLine();

String s2 = sc.nextLine();

int n = sc.nextInt();

int n1 = meterReading(s1, s2, n);

System.out.println(n1);

}

}

Output :-

XYZ8745612

XYZ4561234

2.

import java.util.Scanner;

public class UserMainCode

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

String s1 = sc.next();

boolean b = colorCodeValidation(s1);

if (b == true)

System.out.println("Valid");

else

System.out.println("Invalid");

}

public static boolean colorCodeValidation(String s1)

{

boolean b = false, b1 = false;

String s2 = s1.substring(1, s1.length());

if (s1.length() == 7)

if (s1.charAt(0) == '#')

b1 = true;

if (b1 == true)

for (int i = 0; i < s2.length(); i++)

{

char c = s2.charAt(i);

if (c != '#')

{

if (s2.matches("[A-Fa-f0-9]{6}|[A-Fa-f0-9]{3}"))

b = true;

else

{

b = false;

break;

}

}

}

return b;

}

}

Output :-

#MEEN27

Valid

MEENA26#

Invalid

3.

Code :- import java.util.\*;

class NCR

{

static int nCr(int n, int r)

{

return fact(n) / (fact(r) \*fact(n - r));

}

static int fact(int n)

{

int res = 1;

for(int i = 2; i <= n; i++)

res = res \* i;

return res;

}

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

int n, r;

System.out.println("enter the value of N: ");

n = sc.nextInt();

System.out.println("enter the value of R: ");

r = sc.nextInt();

System.out.println(nCr(n, r));

}

}

Output:-

enter the value of N:

10

enter the value of R:

5

252

4.

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

String a = sc.next();

int d = 0;

if (a.length() >= 8)

{

if (a.contains("#") || a.contains("@") || a.contains("\_"))

{

char c = a.charAt(0);

if (Character.isAlphabetic(c))

{

char dd = a.charAt(a.length() - 1);

if ((Character.isAlphabetic(dd)) || (Character.isDigit(dd)))

{

if (a.matches(".[0-9]{1,}.")|| a.matches(".[a-zA-Z]{1,}."))

{

System.out.println("Valid");

}

else

{

System.out.println("Invalid");

}

}

else

{

System.out.println("Invalid");

}

}

else

{

System.out.println("Invalid");

}

}

else

{

System.out.println("Invalid");

}

}

else

{

System.out.println("Invalid");

}

}

}

Output :-

Meenal@123

Valid

123@meenal

Invalid