P1

import java.util.Scanner;

public class series{

public static void main(String[] args){

int a,b,n;

Scanner sin = new Scanner(System.in);

System.out.println("Enter the value of a,b,n");

a = sin.nextInt();

b = sin.nextInt();

n = sin.nextInt();

int sum = a;

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

sum+=Math.pow(2,i)\*b;

System.out.println(sum+" ");

}

}

}

P2

import java.util.Scanner;

public class reverse{

public static void main(String[] args){

int x;

Scanner sin = new Scanner(System.in);

System.out.println("Enter an integer");

x = sin.nextInt();

ReverseOfx(x);

}

public static void ReverseOfx(int x){

int temp, rev=0,n=x;

n=Math.abs(n);

while(n>0){

temp=n%10;

rev=(rev\*10)+temp;

n/=10;

}

if(x>0){

System.out.println(rev);

}

else

System.out.println(-+rev);

}

}

P3

import java.util.Scanner;

public class inttobin {

public static void main(String[] args) {

int num;

Scanner sin = new Scanner(System.in);

System.out.println("Enter an integer");

num=sin.nextInt();

String bin = convertToBinary(num);

System.out.println("Binary value: " + bin);

}

private static String convertToBinary(int num) {

if (num == 0) {

return "0";

}

String bin = "";

while (num > 0) {

int rem = num % 2;

bin = rem + bin;

num /= 2;

}

return bin;

}

}

P4

import java.util.Scanner;

public class busticket {

public static void main(String[] args) {

Scanner sin = new Scanner(System.in);

// Read input from the user

System.out.print("Enter From stage number: ");

int fromStage = sin.nextInt();

System.out.print("Enter To stage number: ");

int toStage = sin.nextInt();

System.out.print("Enter the number of adult passengers: ");

int adults = sin.nextInt();

System.out.print("Enter the number of children passengers: ");

int children = sin.nextInt();

int stage = Math.abs(toStage - fromStage);

double adultCost = adults \* 10 \* stage;

double childCost = children \* 5 \* stage;

double cost = adultCost + childCost;

double disc;

if (adults >= 5) {

disc = 0.2 \* cost;

} else if (adults == 4) {

disc = 0.15 \* cost;

} else if (adults == 3) {

disc = 0.1 \* cost;

} else if (adults == 2) {

disc = 0.05 \* cost;

} else {

disc = 0;

}

double discCost = cost - disc;

double servCharge = 0.05 \* discCost;

double finalCost = discCost + servCharge;

System.out.println("Number of stages: " + stage);

System.out.println("Total Ticket Cost: Rs." + cost);

System.out.println("Discount: Rs." + disc);

System.out.println("Ticket Cost After Discount: Rs." + discCost);

System.out.println("Service Charge: Rs." + servCharge);

System.out.println("Final Ticket Cost: Rs." + finalCost);

}

}

P5

import java.util.Scanner;

public class nearestprime {

public static void main(String[] args) {

int X;

Scanner sin = new Scanner(System.in);

System.out.println("Enter an integer");

X=sin.nextInt();

int prime = NearestPrime(X);

System.out.println("Nearest prime to " + X + ": " + prime);

}

private static int NearestPrime(int X) {

int sp = X;

int lp = X;

while (!isPrime(sp) && !isPrime(lp)) {

sp--;

lp++;

}

return isPrime(sp) ? sp : lp;

}

private static boolean isPrime(int num) {

if (num <= 1) {

return false;

}

for (int i = 2; i <= Math.sqrt(num); i++) {

if (num % i == 0) {

return false;

}

}

return true;

}

}

P6

import java.util.Scanner;

public class primedigsum {

public static void main(String[] args) {

int X;

Scanner sin = new Scanner(System.in);

System.out.println("Enter an integer");

X=sin.nextInt();

boolean result = isPrimeDigitSumPrime(X);

System.out.println("PrimeDigitSum(" + X + ")" + result);

}

private static boolean isPrimeDigitSumPrime(int X) {

int digitSum = PrimeDigitSum(X);

return isPrime(digitSum);

}

private static int PrimeDigitSum(int number) {

int sum = 0;

while (number > 0) {

int digit = number % 10;

if (isPrime(digit)) {

sum += digit;

}

number /= 10;

}

return sum;

}

private static boolean isPrime(int num) {

if (num <= 1) {

return false;

}

for (int i = 2; i <= Math.sqrt(num); i++) {

if (num % i == 0) {

return false;

}

}

return true;

}

}