A1

1)

**package** firstCode;

**public** **class** ArmstrongNumber {

**public** **static** **void** main(String[] args) {

**int** n=153;

**int** temp=n;

**int** r,sum=0;

**while**(n>0)

{

r = n%10;

n = n/10;

sum = sum+ r\*r\*r ;

}

**if**(temp == sum)

System.***out***.println("Its an Armstrong number");

**else**

System.***out***.println("Not an Armstrong number");

}

}

2)

**public** **class** ArmnumberCount {

**public** **static** **void** main(String[] args) {

**int** i=100,a,arm,n;

System.***out***.println("Armstrong numbers between 100 to 1000 are");

**while**(i<1000)

{

n=i;

arm=0;

**while**(n>0)

{

a=n%10;

arm=arm+(a\*a\*a);

n=n/10;

}

**if**(arm==i)

System.***out***.println(i);

i++;

}

}

}

3)

**package** firstCode;

**public** **class** interest {

**public** **static** **void** main(String[] args) {

//Simple intreset

//(p\*r\*t)/100

**float** p=1100;

**double** r=1.1;

**float** t=6;

**double** simple\_interest=(p\*r\*t)/100;

System.***out***.println("Simple interest : "+ simple\_interest);

//compound intreset

//amount=p(1+r)^n

**double** amount;

**double** principal=1000;

**double** rate=1.1;

**for**(**int** days=1; days<=10; days++)

{

amount= principal\*Math.*pow*(1+rate , days);

System.***out***.println(days +" "+ amount);

}

4)

**package** firstCode;

**public** **class** StudentMarks {

**public** **static** **void** main(String[] args) {

**int** submarks1 = 70;

**int** submarks2 = 50;

**int** submarks3 = 70;

**if**(submarks1>60 && submarks2>60 && submarks3>60)

{

System.***out***.println("Passed");

}

**else** **if**(submarks1>60 && submarks2>60)

{

System.***out***.println("Promoted");

}

**else** **if** (submarks2>60 && submarks3>60)

{

System.***out***.println("Promoted");

}

**else** **if** (submarks1>60 && submarks3>60)

{

System.***out***.println("Promoted");

}

**else** **if** (submarks1<60 && submarks2<60)

{

System.***out***.println("Failed");

}

**else** **if** (submarks2<60 && submarks3<60)

{

System.***out***.println("Failed");

}

}

}

5)

**package** firstCode;

**import** java.util.Scanner;

**public** **class** Income {

**public** **static** **void** main(String[] args) {

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

System.***out***.println("Enter your income");

**double** income = sc.nextDouble();

**if**(income>=0 && income<=180000)

System.***out***.println("Tax payable is 0");

**else** **if**(income>=181001 && income<=300000)

System.***out***.println("Tax payable is : "+(income\*0.1));

**else** **if**(income>=300001 && income<=500000)

System.***out***.println("Tax payable is : "+(income\*0.2));

**else** **if**(income>=500001 && income<=1000000)

System.***out***.println("Tax payable is : "+(income\*0.3));

**else**

System.***out***.println("Enter amount less than 1000000 ");

}

}

7) **package** firstCode;

**public** **class** Search {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int** a[]= {5,12,14,6,78,19,1,23,26,35,37,7,52,86,47};

**int** search\_ele= 19;

**boolean** flag = **false**;

**for**(**int** i=0; i<a.length-1; i++)

{

//System.out.println(a[i]);

**if**(search\_ele == a[i])

{

System.***out***.println("Element found at :"+i);

flag = **true**;

**break**;

}

}

**if**(flag == **false**)

{

System.***out***.println("Element Not found");

}

}

}

8)

**package** firstCode;

**import** java.util.Arrays;

**public** **class** BubleSort {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int** a[]= {5,12,14,6,78,19,1,23,26,35,37,7,52,86,47};

System.***out***.println("Array before sorting:"+ Arrays.*toString*(a));

**int** n= a.length;

**for**(**int** i=0; i<n-1; i++)

{

**for**(**int** j=0; j<n-1; j++)

{

**if**(a[j]> a[j+1])

{

**int** temp = a[j];

a[j] = a[j+1];

a[j+1] = temp;

}

}

}

System.***out***.println("Array After soting :"+Arrays.*toString*(a));

}

9)

Subject class:

public class Subject {

int A;

int B;

int C;

public Subject(int a, int b, int c) {

A = a;

B = b;

C = c;

}

public void sum() {

System.out.println(A+B+C);

}

public void avg() {

System.out.println((A+B+C)/3);

}

}

Student class:

public class Students extends Subject {

public Students(int a, int b, int c) {

super(a, b, c);

}

public static void sumavg(int x, int y,int z) {

int sum=x+y+z;

int avg=sum/3;

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

System.out.println("Average:"+avg);

}

public static void main(String[] args) {

Subject p=new Subject(50,60,70);

Subject q=new Subject(55,65,75);

Subject r=new Subject(90,40,60);

System.out.println("The sum and average of Student1:");

p.sum();

p.avg();

System.out.println("The sum and average of Student2:");

q.sum();

q.avg();

System.out.println("The sum and average of Student3:");

r.sum();

r.avg();

System.out.println();

System.out.println("Sum and Average of Subject A:");

sumavg(p.A,q.A,r.A);

System.out.println("Sum and Average of Subject B:");

sumavg(p.B,q.B,r.B);

System.out.println("Sum and Average of Subject A:");

sumavg(p.C,q.C,r.C);

}

}

**package** firstCode;

**import** java.util.Scanner;

**public** **class** TotalMarks {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**int** a,b,c;

System.***out***.println("Enter marks of three subjects");

Scanner r = **new** Scanner(System.***in***);

a = r.nextInt();

b = r.nextInt();

c = r.nextInt();

**int** sum = a+b+c;

System.***out***.println("Total marks "+ sum);

**double** avg = sum/3.0;

System.***out***.println("Average marks "+ avg);

}

}