

ACCESS

class A

```
{  
    int i;  
    protected int j;  
    void setij(int x,int y)  
    {  
        i=x;  
        j=y;  
    }  
}
```

class B extends A

```
{  
    int total;  
    void sum()  
    {  
        total = i+j;  
    }  
}
```

class Access

```
{  
    public static void main(String args[])  
    {  
        B subOb= new B();  
        subOb.setij(10,12);  
        subOb.sum();  
        System.out.println("total is:" +subOb.total);  
    }  
}
```

```

    }
}
//Compute area of circle
class Area
{
    public static void main(String p[])
    {
        double pi,r,a;

        r=10.4;
        pi=3.1416;
        a=pi*r*r;
        System.out.println("Area of circle is: "+a);
    }
}
// calculate average//
class Average
{
    public static void main(String args[])
    {
        double num[]={1.1,2.2,3.3,4.4,5.5};
        double result=0;
        int i;
        for(i=0;i<5;i++)
            result=result+num[i];
        System.out.println("Average is: "+result/5);
    }
}

```

Bit logic

```

class BitLogic
{
    public static void main(String args[])
    {
        String binary[]={"0000", "0001", "0010", "0011",
"0100", "0101", "0110", "0111",
"1000", "1001", "1010",
"1011", "1100", "1101", "1110", "1111"};

        int a=3;

        int b=6;

        int c=a | b;

        int d=a& b;

        int e=a ^ b;

        int f=(~a & b) | (a & ~b);

        int g=~a & 0x0f;

        System.out.println("A= "+ binary[a]);
        System.out.println("B= "+ binary[b]);
        System.out.println("C= "+ binary[c]);
        System.out.println("D= "+ binary[d]);
        System.out.println("E= "+ binary[e]);
        System.out.println("F= "+ binary[f]);
        System.out.println("G= "+ binary[g]);
    }
}

```

DEMO BOX weight

```

class Box
{
    double width;

    double height;

    double depth;

```

```

Box(Box ob)
{
    width=ob.width;
    height=ob.height;
    depth=ob.depth;
}

Box()
{
    width=-1;
    height=-1;
    depth=-1;
}

Box(double w,double h, double d)
{
    width=w;
    height=h;
    depth= d;
}

Box(double len)
{
    width= height = depth=len;
}

double volume()
{
    return height*width*depth;
}
}

```

```

class BoxWeight extends Box

```

```
{  
  
    double weight;  
  
    BoxWeight(double w, double h, double d, double m)  
    {  
  
        width=w;  
  
        height=h;  
  
        depth=d;  
  
        weight=m;  
  
    }  
}
```

```
class DemoBoxWeight
```

```
{  
  
    public static void main(String args[])  
    {  
  
        BoxWeight mb1= new BoxWeight(10,20,15,34.3);  
        BoxWeight mb2= new BoxWeight(2,3,4,0.076);  
        double vol;  
  
        vol = mb1.volume();  
        System.out.println("Volume of mb1 is: "+vol );  
        System.out.println("Weight of mb1  is: "+mb1.weight );  
        System.out.println();  
  
        vol = mb2.volume();  
        System.out.println("Volume of mb2 is: "+vol );  
        System.out.println("Weight of mb2 is: "+mb2.weight );  
        System.out.println();  
  
    }  
}
```

```

class Fact
{
    int i;

    int fact(int n)
    {
        if(n==1)
            return 1;
        else
            return fact(n-1)*n;
    }
}

class Factorial
{
    public static void main(String p[])
    {
        Fact f = new Fact();
        System.out.println("Factorial of 1 is:" +f.fact(1));
        System.out.println("Factorial of 3 is:" +f.fact(3));
        System.out.println("Factorial of 5 is:" +f.fact(5));
        System.out.println("Factorial of 7 is:" +f.fact(7));
    }
}

class fibo
{
    void Fibo(int n)
    {
        int a,b,c;
        a=0;
        b=1;
    }
}

```

```

        for(int i=0;i<=8;i++)
        {
            c=a+b;

            System.out.println(c);

            a=b;

            b=c;

        }

    }

}

class Fibonacci
{
    public static void main(String p[])
    {
        int n;

        fibo f = new fibo();

        System.out.println("Fibonacci series is: \n 0 \n 1 ");

        f.Fibo(8);

    }

}

class Matrix
{
    public static void main(String args[])
    {
        double m[][] = {
            {0*0, 1*0, 2*0},
            {0*1, 1*1, 2*2},
            {0*2, 1*2, 2*3}

        };

        int i,j;
    }
}

```

```

        for(i=0;i<3;i++)
        {
            for(j=0;j<3;j++)
            System.out.print(m[i][j]+ " ");

            System.out.println();

        }
    }
}

```

class MulByTwo

```

{
    public static void main(String args[])
    {
        int i;
        int num= 20;
        num=num<<1;
        System.out.println(num);
        System.out.println(num<<1);
        System.out.println(num<<2);
        System.out.println(num<<3);

    }
}

```

class A

```

{
    int i,j;

    void showij()
    {
        System.out.println("i and j :"+i + " " +j);
    }
}

```



```
class B extends A
```

```
{  
    int k;  
    void showk()  
    {  
        System.out.println("k is " +k);  
    }  
  
    void sum()  
    {  
        System.out.println("i+j+k :"+(i+j+k));  
    }  
}
```

```
class SimpleInheritance
```

```
{  
    public static void main(String args[])  
    {  
        A superOb = new A();  
        B subOb = new B();  
        superOb.i=10;  
        superOb.j=20;  
        System.out.println("Contents of superOb: ");  
        superOb.showij();  
        System.out.println();  
        subOb.i=7;  
        subOb.j=8;  
        subOb.k=9;  
        System.out.println("Cotents of subOb : ");  
    }  
}
```

```
subOb.showij();  
subOb.showk();  
System.out.println();  
  
System.out.println("Sum of i,j,k in subOb is:");  
subOb.sum();
```

```
}
```

```
}
```

```
class SortArray
```

```
{
```

```
    public static void main(String p[])
```

```
    {
```

```
        int x[]=new int [10];
```

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

```
        {
```

```
            x[i]=Integer.parseInt(p[i]);
```

```
        }
```

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

```
        {
```

```
            for(int j=i+1;j<p.length;j++)
```

```
            {
```

```
                if(x[i]>x[j])
```

```
                {
```

```
                    int k=x[j];
```

```
                    x[j]=x[i];
```

```
                    x[i]=k;
```

```
                }
```

```
            }
```

```

    }

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

    {

        System.out.println(x[i]);

    }

}

```

class TwoDArray

```

{

    public static void main(String a[])

    {

        int twoD[][]= new int [4][];

        twoD[0]=new int [1];

        twoD[1]=new int [2];

        twoD[2]=new int [3];

        twoD[3]=new int [4];


        int i,j,k=0;

        for(i=0;i<4;i++)

        {

            for(j=0;j<i+1;j++)

            {

                twoD[i][j]=k;

                k++;

            }

        }

        for(i=0;i<4;i++)

        {

            for(j=0;j<i+1;j++)

            {

```

```

                System.out.print(twoD[i][j]+" ");
            }
            System.out.println();
        }

    }
}

```

Armstrong

```

class test6
{
    public static void main(String[] args)
    {
        int n,i,sum=0,rem;
        n=153;
        for(i=n;i>0;i=i/10)
        {
            rem=i%10;
            sum=sum+(rem*rem*rem);
        }
        if (n==sum)
        {
            System.out.println("No is Armstrong");
        }
        else
        { System.out.println("No is not Armstrong");
        }
    }
}

```

Leap Year

```

class test4
{
    public static void main(String[] args)
    {
        int a=2004;
        if (a%4==0)
        {
            System.out.println("2004 is a leap year");
        }
    }
}

```

```
}  
}  
}
```

Palindrome\

```
class test5  
{  
public static void main(String[] args)  
{  
int rev=0,no=121,no1=no;  
while(no!=0)  
{  
rev=(rev*10)+(no%10);  
no=no/10;  
}  
if (rev==no1)  
{  
System.out.println("No is Palindrom");  
}  
else  
{ System.out.println("No is not Palindrom");  
}  
}  
}
```