Assignment 1

Ans 1 :

1 import java.util.\*;  
 2 class largesmall{  
 3 public static void main(String args[]){  
 4 System.out.println("Enter the size of an array");  
 5 Scanner sc=new Scanner(System.in);  
 6 int size = sc.nextInt();  
 7 int a[]=new int[size];  
 8 System.out.println("Enter the elements of array");  
 9 for (int i=0; i<size;i++){  
10 System.out.print("Enter "+(i+1)+" element: ");  
11 a[i]= sc.nextInt();  
12 }  
13 int highest = a[0];  
14 for (int i=1; i<5;i++){  
15 if(highest<a[i]) highest = a[i];  
16 }  
17 int smallest = a[0];  
18 for (int i=1; i<5;i++){  
19 if(smallest>a[i]) smallest = a[i];  
20 }  
21 System.out.println("Difference of smallest and largest element of array is : "+(highest-smallest));  
22 }  
23 }

Ans 2 :

1 import java.util.\*;  
 2 class Arrayp{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 int a[]=new int[10];  
 6 System.out.println("Enter the elements of array");  
 7 for (int i=0; i<10;i++){  
 8 System.out.print("Enter "+(i+1)+" element: ");  
 9 a[i]= sc.nextInt();  
10 }  
11 System.out.println("Elements at even places.");  
12 for (int i=0; i<10;i++){  
13 if(i%2!=0) System.out.print(a[i]+" ");  
14 }  
15 System.out.println("");  
16 System.out.println("All odd elements.");  
17 for (int i=0; i<10;i++){  
18 if(a[i]%2!=0) System.out.print(a[i]+" ");  
19 }  
20 System.out.println("");  
21 System.out.println("Array in reverse order.");  
22 for (int i=9; i>=0;i--){  
23 System.out.print(a[i]+" ");  
24 }  
25 System.out.println("");  
26 System.out.println("Last Element : "+a[9]);  
27 System.out.println("First Element : "+a[0]);  
28 }  
29 }

Ans 3 :

1 import java.util.\*;  
 2 class Arraysum{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 int a[]=new int[5];  
 6 System.out.println("Enter the elements of array");  
 7 for (int i=0; i<5;i++){  
 8 System.out.print("Enter "+(i+1)+" element: ");  
 9 a[i]= sc.nextInt();  
10 }  
11 int sum = 0;  
12 for (int i=0; i<5;i++){  
13 sum = sum + a[i];  
14 }  
15 System.out.println("Sum of all elements of an array is : "+sum);  
16 sum = 0;  
17 int sumi =0;  
18 for (int i=0; i<5;i++){  
19 if(i%2==0){  
20 sum = sum + a[i];  
21 }  
22 else sumi = sumi + a[i];  
23 }  
24 System.out.println("Sum of elements at odd place of an array is : "+sum);  
25 System.out.println("Sum of elements at even place of an array is : "+sumi);  
26 int highest = a[0];  
27 int second = a[0];  
28 for (int i=1; i<5;i++){  
29 if(highest<a[i]) highest = a[i];  
30 }  
31 for (int i=1; i<5;i++){  
32 if(second<highest && second<a[i] && highest != a[i]) second = a[i];  
33 }  
34 System.out.println("Second highest element in an array is : "+second);  
35 }  
36 }

Ans 4 :

1 import java.util.\*;  
 2 class frequency{  
 3 public static void main(String args[]){  
 4 System.out.println("Enter the size of an array");  
 5 Scanner sc=new Scanner(System.in);  
 6 int size = sc.nextInt();  
 7 int a[]=new int[size];  
 8 System.out.println("Enter the elements of array");  
 9 for (int i=0; i<size;i++){  
10 System.out.print("Enter "+(i+1)+" element: ");  
11 a[i]= sc.nextInt();  
12 }  
13 System.out.println("Enter the number to search the frequency : ");  
14 int b = sc.nextInt();  
15 int j = 0;  
16 for (int i=0; i<size;i++){  
17 if(b==a[i]) j++;  
18 }  
19 if(j==0) System.out.println("Entered number is not in array");  
20 else System.out.println("frequency of "+b+" in array is "+j);  
21 }  
22 }

Ans 5 :

1 //NAME: JHALKESH PATHAK  
 2 // ROLL NO.: 19CSU381  
 3 //THIS PROGRAM DISPLAY 2D ARRAY  
 4 import java.util.\*;  
 5 class Array2D{  
 6 public static void main(String args[]){  
 7 int r[][]=new int[3][3];  
 8 Scanner sc=new Scanner(System.in);  
 9 System.out.println("Enter the elements of array.");  
10 for(int i=0;i<3;i++){  
11 for(int j=0;j<3;j++){  
12 System.out.print("r["+(i+1)+"]["+(j+1)+"] = ");  
13 do{  
14 r[i][j]=sc.nextInt();  
15 if(r[i][j]<-99 || r[i][j]>99){  
16 System.out.println("Entered number is not two or one digit number.\nAgain enter the number.");  
17 }  
18 }while(r[i][j]<-99 || r[i][j]>99);  
19 }  
20 }  
21 for(int i=0;i<3;i++){  
22 for(int j=0;j<3;j++){  
23 System.out.print(r[i][j]+" ");  
24 if(j==2){  
25 System.out.print("\n");  
26 }  
27 }  
28 }  
29 System.out.print("Array after odd number multiplied by 2.\n");  
30 for(int i=0;i<3;i++){  
31 for(int j=0;j<3;j++){  
32 if(r[i][j]%2!=0){  
33 r[i][j]=r[i][j]\*2;  
34 }  
35 else   
36 continue;  
37 }  
38 }  
39 for(int i=0;i<3;i++){  
40 for(int j=0;j<3;j++){  
41 System.out.print(r[i][j]+" ");  
42 if(j==2){  
43 System.out.print("\n");  
44 }  
45 }  
46 }  
47 }  
48 }

Ans 6 :

1 import java.util.\*;  
 2 class Array667{  
 3 public static void main(String args[]){  
 4 int[] a = {6,6,7,2,5,4,1,8,6,7,6,6};  
 5 int size= a.length;  
 6 int repeat = 0;  
 7 for(int i =0; i<(size-1); i++){  
 8 if(a[i]==6 && a[i+1]==6 || a[i]==6 && a[i+1]==7){  
 9 repeat++;  
10 }  
11 else continue;  
12 }  
13 System.out.println("No. of times 6 followed by 6 or 7 : "+repeat);  
14 }  
15 }

Ans 7 :

1 import java.util.\*;  
 2 class swaparrayad{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 System.out.print("Enter the size of array: ");  
 6 int n = sc.nextInt();  
 7 int a[]=new int[n];  
 8 System.out.println("Enter the elements of array");  
 9 for (int i=0; i<n;i++){  
10 System.out.print("Enter "+(i+1)+" element: ");  
11 a[i]= sc.nextInt();  
12 }  
13 int l= 0;  
14 if(n%2!=0){  
15 for (int i=0; i<(n/2)\*2;i=i+2){  
16 l = a[i];  
17 a[i]=a[i+1];  
18 a[i+1] = l;  
19 }  
20 }  
21 if(n%2==0){  
22 for (int i=0; i<(n/2)\*2-1;i=i+2){  
23 l = a[i];  
24 a[i]=a[i+1];  
25 a[i+1] = l;  
26 }  
27 }  
28 for(int i=0;i<n;i++){  
29 System.out.print(a[i]+" ");  
30 }  
31 }  
32 }

Ans 8 :

1 import java.util.\*;  
 2 class median{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 System.out.print("Enter the size of array: ");  
 6 int n = sc.nextInt();  
 7 int a[]=new int[n];  
 8 System.out.println("Enter the elements of array");  
 9 for (int i=0; i<n;i++){  
10 System.out.print("Enter "+(i+1)+" element: ");  
11 a[i]= sc.nextInt();  
12 }  
13 double med =0;  
14 Arrays.sort(a);  
15 if(n%2==0){  
16 med = (a[n/2]+a[(n/2)-1])/2.0;  
17 }  
18 else med = a[(n-1)/2];  
19 System.out.println("Median of inserted array: "+med);  
20 }  
21 }

Ans 9 :

Same as 7.

Ans 10 :

1 import java.util.\*;  
 2 class arraypalindrome{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 System.out.print("Enter the size of array: ");  
 6 int n = sc.nextInt();  
 7 String a[]=new String[n];  
 8 System.out.println("Enter the string elements of array");  
 9 for (int i=0; i<n;i++){  
10 System.out.print("Enter "+(i+1)+" element: ");  
11 a[i]= sc.next();  
12 }  
13 int ctr = 0;  
14 for (int i=0; i<n/2;i++){  
15 if(a[i].equals(a[n-1-i])) ctr++;  
16 else continue;  
17 }  
18 if(ctr==n/2) System.out.println("Entered array is palindrome.");  
19 else System.out.println("Entered array is not palindrome.");  
20 }  
21 }

Ans 11 :

1 import java.util.\*;  
 2 class pascal2d{  
 3 public static void main(String args[]){  
 4 Scanner sc=new Scanner(System.in);  
 5 System.out.print("Enter the size of pascal triangle: ");  
 6 int n = sc.nextInt();  
 7 int a[][] = new int[n][n];  
 8 for(int i=0;i<n;i++){  
 9 for(int j=0;j<=i;j++){  
10 if(j==0 || j==i) a[i][j] = 1;  
11 else a[i][j]=a[i-1][j-1]+a[i-1][j];  
12 }  
13 }  
14 for(int i=0;i<n;i++){  
15 for(int j=0;j<=i;j++){  
16 System.out.print(a[i][j]+"\t");  
17 }  
18 System.out.println("");  
19 }  
20 }  
21 }

Ans 12 :

1 import java.util.\*;  
 2 class Sales{  
 3 public static void main(String args[]){  
 4 int n=0,s,d;  
 5 Scanner sc=new Scanner(System.in);  
 6 int sales[][]=new int[5][6];  
 7 int no[][]=new int[5][6];  
 8 int num[]=new int[30];  
 9 for(int i=0;i<4;i++){  
 10 System.out.println("Enter the last week sale of salesperson number "+(i+1)+" :");  
 11 for(int j=0;j<5;j++){  
 12 System.out.print("Enter last week sale of product "+(j+1)+" :");  
 13 sales[i][j]=sc.nextInt();  
 14 }  
 15 }  
 16 for(int i=0;i<4;i++){  
 17 int sum=0;  
 18 for(int j=0;j<5;j++){  
 19 sum=sum+(sales[i][j]);  
 20 }  
 21 sales[i][5]=sum;  
 22 }  
 23 for(int i=0;i<5;i++){  
 24 int sum=0;  
 25 for(int j=0;j<4;j++){  
 26 sum=sum+(sales[j][i]);  
 27 }  
 28 sales[4][i]=sum;  
 29 }  
 30 for( int i=0;i<5;i++){  
 31 for( int j=0;j<6;j++){  
 32 no[i][j]=sales[i][j];  
 33 }  
 34 }  
 35 int p=0;  
 36 for( int j=0;j<6;j++){  
 37 for( int i=0;i<5;i++){  
 38 int ctr=0;  
 39 while(no[i][j]>0){  
 40 no[i][j]=no[i][j]/10;  
 41 ctr++;  
 42 }  
 43 num[p]=ctr;  
 44 p++;  
 45 }  
 46 }  
 47 System.out.println("Product\\Salesperson Person 1 Person 2 Person 3 Person 4 Total Product's ");  
 48 System.out.println("number number sale");  
 49 for(int j=0;j<6;j++){  
 50 if(j<5){  
 51 System.out.print(" "+(j+1)+" ");  
 52 }  
 53 else{  
 54 System.out.print("Total salesPerson sale ");  
 55 }  
 56 for(int i=0;i<5;i++){  
 57 if(i==4 && j==5){  
 58 System.out.print(" ");  
 59 }  
 60 else{  
 61 System.out.print(sales[i][j]+" ");  
 62 int h=9-num[n];  
 63 while(h>0){  
 64 System.out.print(" ");  
 65 h--;  
 66 }  
 67 }  
 68 if(i==4){  
 69 System.out.print("\n");  
 70 }  
 71 n++;  
 72 }  
 73 }  
 74 }  
 75 }