1.)
```
import java.util.Scanner;
class sum {
    public static void main(String[] args[]) {
        int n;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of
                            elements: ");
        n=sc.nextInt();
        int[] arr = new int[n];
        System.out.println("Enter the elements of
                            array: ");
        for (int i=0; i<n; i++) {
            arr[i]=sc.nextInt();
        }
        int Se=0, So=0;
        for(int i=0; i<arr.length; i++) {
            if(i%2==0)
                Se+=arr[i];
            else
                So+=arr[i];
        }
        System.out.println("Sum of even positions: "
                            +Se);
        System.out.println("Sum of odd positions: "
                            +So);
    }
}
```

2)
```
import java.util.Scanner;
class Type {
  public static void main (String args[]) {
    int n, i, pos=0, neg=0, zero = 0;
    int arr [] = new int [20];
    Scanner sc= new Scanner (System.in);
    System.out.println ("Enter the length of array:");
    n= sc.nextInt();
    System.out.println ("Enter numbers:");
    for (i=0; i<n; i++) {
      arr [i] = sc.nextInt();
    }
    for (i=0; i<n; i++) {
      if( arr [i] >0) {
        pos++;
      }
      else if (arr[i] == 0) {
        zero++;
      }
      else if (arr[i] < 0) {
        neg++;
      }
    }
    System.out.println ("Positive numbers are: "
                        +pos);
    System.out.println ("Negative numbers are: "
                        +neg);
    System.out.println ("Zeros are: " +zero);
  }
}
```

3.
```
import java.util.Scanner;
class bill {
public static void main(String args[]) {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter number of items: ");
    int n=sc.nextInt();
    double itotal, total=0;
    double[] rate= new double[n];
    int[] qu = new int[n];
    for(int i=0; i<n; i++) {
        System.out.println("Enter quantity of purchase
                & rate per item for item "+(i+1));
        int q =sc.nextInt();
        double r = sc.nextDouble();
        qu[i] = q;
        rate[i] = r;
    }
    for(int i=0; i<n; i++) {
        itotal = qu[i] * rate[i];
        total += itotal;
    }
    if(total >=10000) {
        System.out.println("\nDiscount = 5% \nTotal
            bill = "+total+"\nDiscounted bill = "
            +(total- total * 0.05));
    }
    else if (total >=7500) {
        System.out.println("\nDiscount = 3% \nTotal
            bill= "+total+"\nDiscounted bill = "
            +(total-total * 0.03));
    }
```

```
else if (total >= 5000) {
    System.out.println ("\nDiscount = 2% \n
        Total bill = " +total+ "\nDiscounted bill="
            +(total-total * 0.02));
}
else {
    System.out.println ("\nNo discount \nTotal
                    bill = " + total);
    }
}
}
```

4.)
```
import java.util.Scanner;
class Practice {
public static void main (String ~~arg~~ ss[]) {
  Scanner sc=new Scanner(System.in);
  int ~~i~~ i,n,j=0, k=0, sum=0, avg=0, max=0,
          min=0;
  System.out.println("Enter number of elements: ");
  n=sc.nextInt();
  int A[]=new int[n];
  int B[]=new int[n];
  int C[]=new int[n];
  max = C[0];
  System.out.println("Enter all the elements: ");
  for(i=0; i<n; i++) {
     A[i]=sc.nextInt();
  }
  for(i=0; i<n; i++) {
   if(A[i]%2!=0) {
      B[j]=A[i];
      j++;
   }
   else {
      C[k]=A[i];
      k++;
   }
  }
  System.out.println("Odd: ");
  if(j>1) {
     for(i=0; i<(j-1); i++) {
        System.out.println(B[i]);
     }
```

```
        System.out.println(B[j-1]);
    }
    else {
        System.out.println("No number");
    }
    System.out.println("Even: ");
    if(K>1) {
        for(i=0; i<(K-1); i++) {
            System.out.println(C[i]);
        }
    }
    System.out.println(C[K-1]);
    for(i=0; i<C.length; i++) {
        sum+=C[i];
        avg = sum/K;
    }
    for(i=0; i<K; i++) {
        min = C[0];
        if(C[i]>max) {
            max=C[i];
        }
        if(C[i]<min) {
            min=C[i];
        }
    }
    System.out.println("SUM = "+sum);
    System.out.println("AVERAGE = "+avg);
    System.out.println("MAXIMUM = "+max);
    System.out.println("MINIMVM = "+min);
}
}
```