Bài tập Java

I/ Các bài tập Java cơ bản

Bài 05

```
/*
 *In ra man hinh tat ca cac hop so <100
 **/
public class bai05 {
   public static void main(String[] args)
   {
        int k,n,dem;
        for(k=1;k<=100;k++)
                {
                        dem=0; // dat ja tri cua bien dem=0 ung voi moi ja tri cua k
                        for(n=2;n<=k;n++)
                        {
                                if(k%n==0) // neu so du khi chia k cho n =0
                                {
                                        dem++; // thi bien dem duoc cong them 1 don vi
                                }
                        }
                        if(dem>1)
                        {
                                System.out.println("hop so la"+k);
                        }
                }
   }
}
```

Bài 06

```
/*
 *In ra man hinh 15 so nguyen to dau tien
 **/
public class bai06 {
   public static void main(String[] args)
        {
                int k=0,n,dem,j=0;// khai bao cac bien, dat ja tri ban dau cho cac bien can thiet
                while (j<15) // trong khi so nguyen to da in < 15
                {
                        k++; // cong cho k 1 don vi
                        dem=0; // reset gia tri cua bien dem =0 ung voi moi ja tri cua k
                        for (n=2;n<=k;n++)
                        {
                                if (k%n==0)
                                {
                                        dem++;
                                }
                        }
                        if (dem==1)
                        {
                                System.out.print(k+"  ");
                                j++;// so lan in duoc cong them 1
```

```
                        }
                }
        }}
```

Kết quả

```
2  3  5  7  11  13  17  19  23  29  31  37  41  43  47
Process completed.
```

Bài 07

```
/*
 *In ra man hinh tat ca cac so nguyen to tu 1000 den 2000
 **/
public class bai7 {
        public static void main(String[] args) {
      int k,n,dem;
      for (k=1000;k<=2000;k++)
      {
        dem=0;
        for (n=2;n<=k;n++)
        {
                if(k%n==0)
                        dem++;
        }
        if(dem==1)
                System.out.println(k);
      }
    }
}
```

Bài 08

```
/*
 *In ra man hinh cac so <100 va chia het cho 3,7
 */
 public class bai08 {
    public static void main(String[] args) {

                int k,n;
                for (k=1;k<100;k++)
                {
                        if ((k%3==0) && (k%7==0))
                                System.out.print(k+"  ");
                }
    }
}
```

Kết quả

```
21  42  63  84
Process completed.
```

Bài 09

```
/*
 *In ra man hinh cac so nam giua 1000 va 200 dong thoi chia het cho 3,5,7
 */
public class bai09 {
```

```
    public static void main(String[] args) {
        int k;
        for (k=1000;k<=2000;k++)
        {
            if((k%3==0)&(k%5==0)&(k%7==0))
                System.out.print(k+"  ");
        }
    }
}
```

Kết quả

```
1050  1155  1260  1365  1470  1575  1680  1785  1890  1995
Process completed.
```

Bài 10

```
/*
 *In ra man hinh 5 so hoan hao dau tien( so hoan hao la so co tong bang cac uoc so cua minh ke ca 1)
 **/
public class bai10 {
        public static void main(String[] args) {
      int k=0,j=0,n,tong;
      while(j<5)
      {
        k++;
        tong=1;// vi 1 luon la uoc cua cac so hang
        for(n=2;n<k;n++) // ja tri ban dau cua n = 2 thay vi dat bang 1 vi da tinh 1 la uoc o phia tren
        {
            if (k%n==0)
                tong+=n;
        }
        if (k==tong)
        {
            System.out.print(k+"  ");
            j++;
        }
      }
    }
}
```

Kết quả

```
1  6  28  496  8128
Process completed.
```

Bài 11

```
/*Trong cac so tu nhien <=100 hay dem xem co bao nhiu so
 *- Chia het cho 5
 *- Chia 5 du 1
 *- Chia 5 du 2
 *- Chia 5 du 3
 */
public class bai11 {
    public static void main(String[] args) {
      int dem0,dem1,dem2,dem3;
      int d,k;
```

```
        dem0=0;dem1=0;dem2=0;dem3=0;
        for (k=5;k<=100;k++)
        {
          switch(d=k%5)
          {
                  case 0 :
                                  dem0++;
                                  break;

                  case 1:
                          dem1++;
                                  break;

                  case 2:
                  dem2++;
                                  break;

                  case 3:
                          dem3++;
                                  break;
          }
        }
        System.out.println("so cac so chia het cho 5 la:" +dem0);
        System.out.println("So cac so chia 5 du 1 la:"+dem1);
        System.out.println("So cac so chia 5 du 2 la:"+dem2);
        System.out.println("So cac so chia 5 du 3 la:"+dem3);
    }
}
```

Kết quả

```
so cac so chia het cho 5 la:20
So cac so chia 5 du 1 la:19
So cac so chia 5 du 2 la:19
So cac so chia 5 du 3 la:19
Process completed.
```

Bài 12

```
/**
 * Cho so tu nhien N bat ki( da gan truoc do),tim va in ra uoc so nguyen to nho nhat cua N
 */
public class bai12 {
        public static void main(String[] args)
    {
        int N=40;
        int k;
        for (k=2;k<=N;k++)
        {
          int dem=0;
          for(int x=2;x<=k;x++)
                  if(k%x==0)
                          dem++;
          if ((N%k==0)&&(dem==1))
                  {
```

```
                        System.out.print("uoc so nguyen to nho nhat la:"+k );
                        break;
                }
        }
    }
}
```

Kết quả

uoc so nguyen to nho nhat la:2
Process completed.

Bài 13

```
/*Cho so tu nhien N > 1 bat ki ( da gan truoc do)
 *In ra khai trien thanh tich cac so nguyen to tinh tu nho den lon
 *Vd 9--> 3.3
 *12--> 2.2.3
 */
```

Cách 1 dùng for

```
public class bai13 {
    public static void main(String[] args) {
        int N=12;
        int k;
        for (k=2;k<=N;k++)
        {
                if (N%k==0)
                {
                        System.out.print(k+" ");
                        N=N/k;
                        k--;
                }
        }
    }
}
```

Cách 2: dùng while

```
public class bai13 {
        public static void main(String[] args) {
      int N=12,k=2;
      while(k<=N)
      {
        for(k=2;k<=N;k++)
        {
                if (N%k==0)
                {
                        System.out.print(k+" ");
                        N=N/k;
                        break;
                }
        }
      }
    }
}
```

Kết quả

2 2 3

Process completed.

Bài 14

```
/*
 *Cho truoc so tu nhien N bat ki (da gan truoc do)
 *In ra man hinh tat ca cac uoc so nguyen to khac nhau cua N
 */
public class bai14 {
   public static void main(String[] args) {
      int k,n,dem,N=1027;
      for (k=1;k<=N;k++)
      {
         dem=0;
         for (n=2;n<=k;n++)
         {
                  if (k%n==0)
                  {
                           dem++;
                  }
         }
         if (dem==1 & N%k==0)
         {
                  System.out.print(k+" ");
         }
      }
   }
}
```

Kết quả

```
13  79
Process completed.
```

II/ Bài tập về hàm và thủ tục (Method & function)

Bài 03

```
/**
 *Cho so thu nhien N bat ki
 *Tinh tong S= 1+ 1/(1+2)+ 1/(1+2+3) + ... + 1/(1+2+3+...+N)
 */
public class ham03 {
   public static void main(String[] args) {
      int N=2;
      float S=0;
      int k;
      for (k=1;k<=N;k++)
      {
         S+=1/(sum(k));
      }
      System.out.print("ket qua la:"+S);
   }
   public static float sum(int k)
   {
         int tong=0;
```

```
        int x;
        for (x=1;x<=k;x++)
        {
                tong+=x;
        }
        return tong;

    }
}
```

Kết quả

```
ket qua la:1.3333334
Process completed.
```

Bài 04

```
/**
 *Cho so tu nhien N bat ki,tinh tong
 *S = 1 + 1/2! + 1/3! +...+ 1/N!
 */
public class ham04 {
    public static void main(String[ ] args) {
        int k,N=3;
        float S=0;
        for (k=1;k<=N;k++)
        {
            S+=1/sum(k);
        }
        System.out.print("ket qua la:"+S);
    }
    public static float sum(int k)
    {
        int tich=1;
        for (int x=1;x<=k;x++)
        {
                tich=tich*x;
        }
        return tich;
    }
}
```

Kết quả

```
ket qua la:1.6666666
Process completed.
```

Bài 05

```
/*
 *Cho so tu nhien N bat ki,tinh tong
 *S= 1 + 1/(1+2!) + 1/(1+2!+3!) +...+ 1/(1+2!+3!+...+N!)
 */
public class ham05 {
    public static void main(String[ ] args) {
        int N=3,k;
        float S=0;
```

```
        for (k=1;k<=N;k++)
        {
            S+=1/sum(k);
        }
        System.out.print("ket qua la "+S);
    }
    public static float sum(int k)
    {
            float tong=0;
            for (int x=1;x<=k;x++)
            {
                    tong+=tich(x);
            }
            return tong;
    }
    public static float tich(int x)
    {
            int t=1;
            for ( int j=1;j<=x;j++)
            {
                    t=t*j;
            }
            return t;
    }
}
```

Kết quả

```
ket qua la 1.4444445
Process completed.
```

Bài 06

```
/**
 *Day Fibonaxi 1  2  3  ...  F(k)=F(k-1)+ F(k-2).Tinh so Fibonaxi thu N
 */
public class ham06 {
    public static void main(String[] args) {
        int a=1,b=2,c=0;
        int N=10,j=3;
        while ( j <=N)
        {
            c=a+b;
            a=b;
            b=c;
            j++;
        }
        System.out.print("so fibonaxy thu 10 la:" +c);
    }
}
```

Kết quả

```
so fibonaxy thu 10 la:89
Process completed.
```

III/ Bài tập về mảng (Array)

Bài 01

```
/**
 *Cho 1 day so tu nhien,viet chuong trinh sap xep day nay theo thu tu giam dan.
 */
public class mang01 {
   public static void main(String[] args) {
      int [] a ={3,1,7,0,10};
         int N=5,k,j,temp;
      for (k=0;k<N-1;k++)
         {
                  for (j=k+1;j<N;j++)
                  {
                           if (a[k]<a[j])
                           {
                                    temp=a[j];
                                    a[j]=a[k];
                                    a[k]=temp;
                           }
                  }
         }
         for (k=0;k<N;k++)
                  System.out.print(a[k]+" ");
 }
}
```

Kết quả:

```
10 7 3 1 0
Process completed.
```

Bài 02

```
/**
 * Cho 1 day so tu nhien, in ra man hinh tat ca cac so nguyen to cua day nay
 */
public class mang02 {
   public static void main(String[] args) {
         int [] a ={3,1,7,0,10};
         int N=5,k,x,dem;
         for (k=0;k<N;k++)
         {
                  dem=0;
                  for (x=2;x<=a[k];x++)
                           if (a[k]%x==0)
                                    dem++;
                  if (dem == 1)
                           System.out.print(a[k]+" ");
         }
   }
}
```

Kết quả

```
3 7
Process completed.
```

Bài 03

```
/**
 *Cho 1day cac so tu nhien, tim va in ra 1 gia tri min cua day nay va tat ca cac chi so ung voi gt min nay
 */
public class mang03 {
   public static void main(String[] args) {
      int [] a ={3,1,7,0,10};
         int N=5,k,min;
         min=a[0];
         for (k=0;k<N;k++)
                  if (min > a[k])
                           min=a[k];
            System.out.println("gia tri nho nhat cua day la:" +min);
         System.out.print("vi tri cua so co gia tri min la:");
         for (k=0;k<N;k++)
                  if (min == a[k])
                           System.out.print(k+"  ");
         }}
```

Kết quả

```
gia tri nho nhat cua day la:0
vi tri cua so co gia tri min la:3
```

Bài 04

```
/**
 *Cho 1day cac so tu nhien, tim va in ra 1 gia tri max cua day nay va tat ca cac chi so ung voi gt max nay
 */
public class mang04 {
   public static void main(String[] args) {
      int [] a ={3,1,7,0,10};
         int N=5,k,max;
         max=a[0];
         for (k=0;k<N;k++)
                  if (max < a[k])
                           max=a[k];
            System.out.println("gia tri lon nhat cua day la:"+max);
         System.out.print("vi tri cua so co gia tri max la:");
         for (k=0;k<N;k++)
                  if(max==a[k])
                           System.out.print(k+"  ");
   }
}
```

Kết quả

```
gia tri lon nhat cua day la:10
vi tri cua so co gia tri max la:4
Process completed.
```

Bài 05

```
/**
 *Cho 1 day so tu nhien,hay dem xem trong day so tren co bao nhieu so nguyen to, co bao nhieu hop so
 */
public class mang05 {
   public static void main(String[] args) {
```

```
        int [] a ={3,1,7,0,10};
        int N=5,k;
        int nt=0;
        int hs=0;
        for (k=0;k<N;k++)
        {
                int dem=0;
                for (int x=2;x<=a[k];x++)
                {
                        if (a[k]%x==0)
                                dem++;
                }
                if (dem==1)
                        nt++;
                else hs++;
        }
        System.out.println("so cac so nguyen to la:"+nt);
        System.out.println("so cac hop so la:"+hs);
    }
}
```

Kết quả

so cac so nguyen to la:2
so cac hop so la:3

Bài 06

```
/**
 *Cho 1 day so tu nhien,hay in ra tat ca cac so hang cua day tren thoa man :
 *So nay la la uoc so thuc su cua 1 so hang khac trong day tren
 */
public class mang06 {
    public static void main(String[] args) {
        int [] a ={3,1,7,14,10};
        int N=5,k;
        for (k=0;k<N;k++)
        {
                for (int j=0;j<N;j++)
                {
                        if ((j==k) |(a[k]==0))
                                continue;
                        if (a[j]%a[k]==0)
                        {
                                System.out.print(a[k]+"  ");
                                break;
                        }
                }
        }
    }
}
```

Kết quả

1 7
Process completed.

Bài 07

```
/**
 *Cho 1 day so tu nhien,haytim 1 so tu nhien nho nhat c khong bang  bat cu so nao trong day tren
 */
public class mang07 {
   public static void main(String[] args) {
        int [] a ={8,8,8,12,9};
        int N=5,k,in=0;
        for (k=0;k<N-1;k++)
        {
                for (int j=k+1;j<N;j++)
                {
                        int temp;
                        if (a[k]>a[j])
                        {
                                temp=a[j];
                                a[j]=a[k];
                                a[k]=temp;
                        }
                }
        }
        for (k=0;k<N-1;k++)
                {
                        if(a[k]!=a[k+1])
                        {
                                if(k==0)
                                {
                                        System.out.println(a[k]);
                                        break;
                                }
                                else
                                        if (a[k-1]!=a[k])
                                        {
                                                System.out.print(a[k]);
                                                break;
                                        }
                        }
                }
   }
}
```

Kết quả

```
9
Process completed.
```

Bài 08

```
/**
 * Cho 1 day so nguyen bat ki,hay xoa di trong day nay cac so hang = 0 va in ra man hinh cac so con lai
cua day
 */
```

Cách 1

```
public class mang08 {
   public static void main(String[] args) {
```

```
        int N=8,i=0,j=0,dem=0;
          int [] a ={8,0,0,0,0,0,12,3};
        int [] b= new int[N];
          while(i<N)
          {
                  if (a[i]==0)
                          i++;
                  else
                  {
                          b[j]=a[i];
                          i++;
                          j++;
                          dem++;
                  }
          }
          for(j=0;j<dem;j++)
                  System.out.print(b[j]+"  ");
          }
}
```

Cách 2

```
public class mang08 {
    public static void main(String[] args) {
        int [] a={8,0,0,0,12,3};
          int N=6,k;
          int dem=0;
          for (k=0;k<N;k++)
          {
                  if (a[k]==0)
                  {
                          dem++;
                          for (int j=k;j<(N-dem);j++)
                          a[j]=a[j+1];
                          k--;
                  }
          }
          for (k=0;k<(N-dem);k++)
                  System.out.print(a[k]+"  ");
          }
}
```

Kết quả

```
8  12  3
Process completed.
```

Bài 09

```
/**
 *Cho 1 day o nguyen bat ki, cho truoc 1 so c.
 *Hay dem co bao nhieu so cua day tren =c; >c; <c.
 */
public class mang09 {
    public static void main(String[] args) {

          int N=5,k,c=3;
```

```
        int [] a={10,9,8,3,5};
        int dem1=0,dem2=0,dem3=0;
        for (k=0;k<N;k++)
        {
                if (a[k]<c) dem1++;
                if (a[k]==c) dem2++;
                if (a[k]>c) dem3++;
        }
        System.out.println("so cac so nho hon c la:"+dem1);
        System.out.println("so cac so bang c la:"+dem2);
        System.out.print("so cac so lon hon c la:"+dem3);
    }
}
```

Kết quả

```
so cac so nho hon c la:0
so cac so bang c la:1
so cac so lon hon c la:4
Process completed.
```

Bài 10

```
/**
 *Cho 1 day so nguyen to bat ki,hay tim ra 1 day so lien nhau dai nhat bao gom cac so bang nhau.
 *Hay in ra so luong va cac chi so dau tien cua day con nay
 */
public class mang10 {
    public static void main(String[] args) {
        int [] a={8,4,9,12,8,8,8,8,8};
        int N=9,k,demmax=0,dem,x=0;
        for (k=0;k<N-1;k++)
        {
                if (a[k]==a[k+1])
                {
                        dem=0;
                        for (int j=k;j<N;j++)
                        {
                                if (a[k]==a[j])
                                        dem++;
                                if (demmax<dem)
                                {
                                        x=k;
                                        demmax=dem;
                                }
                        }
                }
        }
        System.out.println("so cac so thuoc day dai nhat la:"+demmax);
        System.out.print("chi so cua day dai nhat la:"+x);
    }
}
```

Kết quả

```
so cac so thuoc day dai nhat la:5
chi so cua day dai nhat la:4
```

Process completed.

Bài 11

```
/**
 *Cho 1 day so nguyen bat ki. Hay tim 1 day con lien tuc don dieu tang dai nhat cua day tren
 */
public class mang11 {
   public static void main(String[] args) {
      int [] a={8,4,9,12,1,2,3,3,10,3};
         int N=10,k,demmax=0,dem,x=0;
         for (k=0;k<N-1;k++)
         {
                  if (a[k]<=a[k+1])
                  {
                           dem=1;
                           for (int j=k;j<N-1;j++)
                           {
                                    if (a[j]<=a[j+1])
                                    {
                                             dem++;
                                             if (demmax<dem)
                                             {
                                                      demmax=dem;
                                                      x=k;
                                             }
                                    }
                                    else break;
                           }
                  }
         }
         System.out.println("so cac so thuoc day dai nhat la:" +demmax);
         System.out.print("Chi so cua day dai nhat la:" +x);
   }}
```

Kết quả

```
so cac so thuoc day dai nhat la:5
Chi so cua day dai nhat la:4
Process completed.
```

Bài 12

```
/**
 *Day so a[ ] duoc goi la day con cua b[ ] neu tu b[ ] xoa di 1 vai so se thu duoc a[ ]
 *Cho truoc 2 day so nguyen a[ ];b[ ].Hay kiem tra xem a[ ] co la day con cua b[ ] hay ko
 */
public class mang12 {
   public static void main(String[] args) {
      int [] a={0,1,2,3};
      int [] b={0,9,1,2,8,3,8,8,9};
         int M=9,N=4,k,x=0,j;
         int in=0;
         for(j=0;j<N;j++)
                  {
                           for(k=x;k<M;k++)
```

```
                {
                        if(a[j]==b[k])
                        {
                                in++;
                                x=k+1;
                                break;
                        }
                }
        }
        if (in==N)
                System.out.print("day a la day con cua day b");
        else
                System.out.print("day a ko la day con cua day b");
}}
```

Kết quả

day a la day con cua day b
Process completed.

IV/ Bài tập về xâu (String)

Bài 01

```
/**
 *Cho truoc 1 xau ky tu la ho ten nguoi day du nhung khi nhap co the thua mot so dau cach.
 *Hay xoa di cac dau cach thua va in ra ho ten chinh xac.
 */
public class String01 {
   public static void main(String[] args) {
      String S = new String ("   Nguyen     Thi     Binh  ");
      String S1,S2 = new String ();
      S=S.trim();
      for (int k=0; k<S.length();k++)
      {
         S1=S.substring(k,k+1);
         if (S1.equals(" "))
         {
                 S1=S.substring(k+1,k+2);
                 if (S1.equals(" "))
                         continue;
                 else S2=S2+S.substring(k,k+1);
         }
         else S2=S2+S1;
      }
      System.out.print(S2);
   }
}
```

Kết quả

Pepsi Milo Ovantine
Process completed.

Bài 02

```
/**
 *Cho truoc xau ky tu bat ky. Hay dem xem trong xau co bao nhieu lan xuat hien xau con “abc”.
```

```
 */
public class String02 {
   public static void main(String[] args) {
      String S = new String ("abc def ab cdfg abcabc");
      String S1= new String ();
      int dem=0;
      for (int k=0;k<S.length()-2;k++)
      {
         S1= S.substring(k,k+3);
         if(S1.equals("abc"))
                  dem++;
      }
      System.out.print(dem);
   }
}
```

Kết quả

3
Process completed.

Bài 03

```
/**
 * Cho truoc 1 xau ky tu la ho ten nguoi day du, hay tach ra phan ten cua nguoi nay.
 */
public class String03 {
   public static void main(String[] args) {
      String S = new String ("   Nguyen    Van  An   ");
      String S1 = new String ();
      S=S.trim();
      int k;
      for (k=S.length()-1;k>=0;k--)
      {
         S1=S.substring(k,k+1);
         if(S1.equals(" "))
                  break;
      }
      System.out.print("Ten cua nguoi do la:"+S.substring(k+1));
   }
}
```

Kết quả

Ten cua nguoi do la:An
Process completed.

Bài 04

```
/**
 *Cho truoc 1 xau ky tu la 1 ho ten nguoi day du, hay tach ra phan ho cua nguoi nay
 */
public class String04 {
   public static void main(String[] args) {
      String S = new String ("   Nguyen    Van  An   ");
      String S1 = new String ();
      S=S.trim();
      int k;
```

```
        for (k=0;k<=S.length();k++)
        {
           S1=S.substring(k,k+1);
           if(S1.equals(" "))
                    break;
        }
        System.out.print("Ho cua nguoi do la:"+S.substring(0,k));
    }
}
```

Kết quả

Ho cua nguoi do la:Nguyen
Process completed.

Bài 05

```
/**
 *Cho 1 xau ky tu bao gom toan cac ky tu 0, 1. Hay bien doi xau nay theo cach 0 -> 1, 1->0 va in ra ket
qua.
 */
public class String05 {
    public static void main(String[] args) {
        String S = new String ("010001110001100");
        String S1= new String ();
        String S2= new String ();
        for (int k=0;k<S.length();k++)
        {
           S1=S.substring(k,k+1);
           if (S1.equals("0"))
                    S1="1";
           else
                    S1="0";
           S2=S2+S1;
        }
        System.out.print(S2);
    }
}
```

Kết quả

101110001110011
Process completed.

Bài 06

```
/**
 *Cho truoc xau ky tu S, in ra xau S1 nguoc lai xau S.
 */
public class String06 {
    public static void main(String[] args) {
        String S,S1,S2= new String ();
        S="1234567890";
        for ( int k=S.length()-1;k>=0;k--)
        {
           S1=S.substring(k,k+1);
```

```
        S2=S2+S1;
      }
      System.out.print(S2);
   }
}
```

Kết quả

0987654321

Process completed.

Bài 07

```
/**
 * Cho truoc xau ky tu S. Hay bien doi S theo quy tac sau: chu so thi bien thanh "$" con cac ky tu khac giu nguyen.
 **/
public class String07 {
   public static void main(String[] args) {
      String S = new String ("12a3456b78   c   90");
      String [] X= {"0","1","2","3","4","5","6","7","8","9"};
      String S1= new String ();
      String S2= new String ();
      for ( int k=0;k<S.length();k++)
      {
        S1=S.substring(k,k+1);
        for (int j=0;j<10;j++)
              if (S1.equals(X[j]))
              {
                    S1="$";
                    break;
              }
        S2=S2+S1;
      }
      System.out.print(S2);
   }
}
```

Kết quả

$$a$$$$b$$ c $$

Process completed.

Bài 08

```
/**
 *Cho truoc 2 xau ky tu S1, S2. Hay dem xem xau S1 xuat hien trong S2 tai bao nhieu vi tri.
 */
public class String08 {
   public static void main(String[] args) {
      String S1= new String ("abc def ghj abc ab c");
      String S2= new String ("abc");
      String S3= new String();
      int dem=0;
      for (int k=0;k<S1.length()-S2.length();k++)
      {
        S3=S1.substring(k,k+S2.length());
        if (S3.equals(S2))
```

```
                dem++;
        }
        System.out.print(dem);
    }
}
```

Kết quả

2

Process completed.

Bài 09

```
/**
 *Cho xau S va 2 chi so i, j. Hay doi cho 2 vi tri i, j trong S.
 */
public class String09 {
    public static void main(String[] args) {
        String S= new String ("0123456789");
        String S1,S2 = new String();
        int i=3,j=8;
        int N=S.length();
        for (int k=0;k<N;k++)
        {
            S1= S.substring(k,k+1);
            if ((k!=i) && (k!=j))
                    S2=S2+S1;
            if (k==i)
                    S2=S2+S.substring(j,j+1);
            if (k==j)
                    S2=S2+S.substring(i,i+1);
        }
        System.out.print(S2);
    }
}
```

Kết quả

0128456739

Process completed.

Bài 10

```
/**
 *Cho mang xau ky tu S1, S2… Sn. Hay tim va in ra phan tu xau co do dai lon nhat.
 */
public class String10 {
    public static void main(String[] args) {
        String [] S = {"Hehe", "hahaha", "hihihihi"};
        int max=0;
        for (int k=0;k<3;k++)
        {
            if (max<S[k].length())
                    max=S[k].length();
        }
        for (int k=0;k<3;k++)
        {
            if (S[k].length()==max)
```

```
                System.out.print(S[k]);
        }
    }
}
```

Kết quả

hihihihi
Process completed.

Bài 11

```
/**
 *Cho danh sach ho ten day du hoc sinh. Hay dem xem co bao nhieu ban ten “An”.
 */

public class String11 {
    public static void main(String[] args) {
        String [] ds = {"  Nguyen Van An ","Nguyen Thi Binh ", "Le Van Lan ","Le An  "};
        int dem=0;
        for(int k=0;k<4;k++)
        {
            ds[k]=ds[k].trim();
            int N=ds[k].length();
            String S1=ds[k].substring(N-2);
            if (S1.equals("An"))
                dem++;
        }
        System.out.print(dem);
    }
}
```

Kết quả

2
Process completed.

Bài 12

```
/**
 *Cho danh sach ho ten day du hoc sinh. Hay dem xem co bao nhieu ban co phan  dem la “Thi”.
 */

public class String12 {
    public static void main(String[] args) {
        String [] dshs = {" Nguyen Thi Lan", "Nguyen Thi Binh ","Le Van Lan  "};
        int dem=0;
        for (int k=0;k<3;k++)
        {
            dshs[k]=dshs[k].trim();
            String S1= new String ();
            int N= dshs[k].length();
            int i,j;
            for (i=0;i<N;i++)
            {
                S1=dshs[k].substring(i,i+1);
                if(S1.equals(" "))
                    break;
```

```
                }
                for (j=N-1;j>=0;j--)
                {
                        S1=dshs[k].substring(j,j+1);
                        if(S1.equals(" "))
                                break;
                }
                S1=dshs[k].substring(i+1,j);
                if(S1.equals("Thi"))
                        dem++;
        }
        System.out.print(dem);
    }
}
```

Kết quả

2

Process completed.

Bài 13

```
/**
 *Cho danh sach ho ten day du hoc sinh. Hay dem xem co bao nhieu ban co ten bat dau bang chu “H”.
 */
```

Cách 1

```
public class String13 {
    public static void main(String[] args) {
        String [] ds={"Nguyen Thi Binh   "," Tran Binh Minh  "," Nguyen Thi Hoa "};
        int i;
        int dem=0;
        String S= new String();
        for(int k=0;k<3;k++)
        {
            ds[k]=ds[k].trim();
            int N=ds[k].length();

            for (i=N-1;i>=0;i--)
            {
                    S=ds[k].substring(i,i+1);
                    if (S.equals(" "))
                            break;
            }
            S=ds[k].substring(i+1,i+2);
            if(S.equals("H"))
                    dem++;
        }
        System.out.print(dem);
    }
}
```

Cách 2

```
public class String13_2 {
    public static void main(String[] args) {
        String [] ds={"Nguyen Thi Binh   "," Tran Binh Minh  "," Nguyen Thi Hoa "};
```

```
        int i;
        int dem=0;
        for(int k=0;k<3;k++)
        {
          ds[k]=ds[k].trim();
          int N=ds[k].length();
          for (i=N-2;i>=0;i--)
          {
                  String S=ds[k].substring(i,i+2);
                  if (S.endsWith("H") && S.startsWith(" "))
                  {
                          dem++;
                          break;
                  }
          }
        }
        System.out.print(dem);
    }
}
```

Kết quả

1
Process completed.

Bài 15

```
/**
 *Day xau ki tu S1,S2... duoc cho theo quy tac sau
 *S1="1111100000", Sk thu duoc tu Sk-1 bang cach thay doi cho lan luot cac vi tri
 *1-2;2-3;3-4;4-5;5-6;6-7;7-8;8-9;9-10
 *Cho truoc so tu nhien N , hay in ra xau Sn
 */

public class String15 {
    public static void main(String[] args) {
        String S = new String ("0123456789");
        String S1 = new String ();
        int N=2;
        int k,dem=0;
        int L=S.length();
        while (dem<N)
        {
          for (k=1;k<L;k++)
                  S1=S1+S.charAt(k);
          S1=S1+S.charAt(0);
          S=S1;
          S1="";
          dem++;
        }
        System.out.print(S);
    }
}
```

Kết quả

2345678901

Process completed.

Bài 16

```
/**
 *Cho truoc 2 xau ki tu S1,S2.hay chen xau S1 vao giua xau S2 va in ra ket qua
 */
public class String16 {
    public static void main(String[] args) {
        String S2= new String ("123456789");
        String S1=new String("abcdefg");
        String S3=new String();
        int N=S2.length();
        int k;
        if (N%2==0) k=N/2;
        else
            k=(N+1)/2;
        S3=S2.substring(0,k);
        S3=S3+S1;
        S3=S3+S2.substring(k);
        System.out.print(S3);
    }
}
```

Kết quả

12345abcdefg6789
Process completed.

Bài 17

```
/**
 *Cho truoc 2 xau S1,S2. Hay xet xem xau S1 o phai la xau con cua S2 neu xoa bo vai ky tu cua xau S2
duoc xau S1
 */
public class String17 {
    public static void main(String[] args) {
        String S1= new String ("abcdefg");
        String S2= new String ("abc3456defg789");
        int x=0,j=0,dem=0,k;
        int N2=S2.length();
        int N1=S1.length();
       while (j<N1)
        {
            k=x;
            while (k< N2)
            {
                    if (S2.charAt(k)==S1.charAt(j))
                    {
                            dem++;
                            x=k;
                            break;
                    }
                    else k++;
```

```
            }
            j++;
        }
        if (dem==N1)
            System.out.print("S1 la chuoi con cua S2 ");
        else
            System.out.print("S1 khong phai la chuoi con cua S2");
    }
}
```

Kết quả

S1 la chuoi con cua S2
Process completed.