```
import java.util.*;
public class AdditioOfNDigits {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=5;
           int sum=0;
           for(int i=1;i<=n;i++){</pre>
                  sum+=i;
           System.out.println(sum);
     }
}
//1+2+3+4+5==15
import java.util.*;
public class MultiplesOf3and5 {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no=1;
           while(no<=20){</pre>
                 if((no%3==0)|| (no%5==0))
                 {
                      System.out.print(no+" ");
                 }
                 no++;
           }
     }
}
//15
//3 5 6 9 10 12 15 18 20
import java.util.*;
public class ReverseANumber {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=1234;
           while(n>0){
                 int rem=n%10;
                 System.out.print(rem);
                 n/=10;
```

```
}
     }
}
//4321
import java.util.*;
public class NoOfDigits {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=1234;
           int c=0;
           while(n>0){
                 n=n/10;
                 C++;
           System.out.print(c);
     }
}
//4
import java.util.*;
public class AdditionOfDigits {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=1234;
           int sum=0;
           while(n>0){
                 int rem=n%10;
                 sum=sum+rem;
                 n/=10;
           System.out.print(sum);
     }
//1+2+3+4==10
```

```
import java.util.*;
public class FibonacciSeries {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int f=0, s=1;
           System.out.println(f);
           System.out.println(s);
           for(int i=0;i<8;i++){</pre>
                int t=f+s;
                System.out.print(t+" ");
                if(t==5){
                      break;
                }
                f=s;
                s=t;
           }
     }
}
//0
//1
//1 2 3 5 8 13 21 34
import java.util.*;
//LCM ---LEAST COMMON MULTIPLE
// 3 6 9 12 15 18
                          //6 12 18 24 30
//GREATEST NUMBER POSSIBILITY
public class LCM {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no1=3,no2=5;
           int max=no1>no2?no1 :no2;
           int lcm=0;
           //3 6 9 12 15 18 5 10 15 20 25
           while(true){
                if((max%no1==0) && (max%no2==0))
                {
```

```
lcm=max;
                       break;
                 }
                 max++;
           System.out.print(lcm);
     }
//15
import java.util.*;
//GREATEST COMMON DIVISOR
//12
                   30
                    30 15 10 6 5 3 2
//12 6 3 2
//SMALLEST NUMBER POSSIBILITY
public class GCDOrHCF {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no1=12,no2=30;
           int min=no1<no2?no1:no2;</pre>
           while(min>=2){
                 if((no1%min==0)&&(no2%min==0))
                 {
                       System.out.print(min);
                       break;
           min--;
           }
     }
}
//6
import java.util.*;
public class SquareRootOfANumber {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no=36;
           int i=2;
```

```
while(i<=no/2){</pre>
                 if(no/i==i){
                       System.out.print(i);
                 }
           i++;
     }
}
//6
import java.util.*;
public class ReverseANumber {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=1234;
           int rem=0;
           while(n>0){
                  rem = (rem*10) + n%10;
                  n/=10;
           System.out.print(rem);
     }
//4321
import java.util.*;
public class Factorial {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no=5;
           int fact=no;
           while(no>1){
                 no--;
                 fact=fact*no;
           System.out.print(fact);
     }
```

```
}
//120
//5 4 3 2 1
import java.util.*;
public class SquareNumbers {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int i=1;
           while(i<5){</pre>
                 System.out.println((int)Math.pow(i, i));
           }
     }
}
//1
//4
//27
//256
import java.util.*;
// 2 odd nos
// 2 3 5 7 9 11 13 15 17 19 21 23
public class PrimeNos {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           System.out.print(2);
           int no=3;
           int i=2;
           int c=1;
           boolean isPrime=true;
           while(c<10){</pre>
                 while(i<no){</pre>
                       if(no%i==0){
                             System.out.print("Not prime");
                             isPrime=false;
                       }
                       i++;
                 }
```

```
if(isPrime=true){
                     System.out.print(" "+no+" ");
                     C++;
                }
          no=no+2;
     }
//2 3 5 7 9 11 13 15 17 19
import java.util.*;
public class DecimalToBinary {
     public static void main(String[] args) {
          // TODO Auto-generated method stub
          int decimal=4;
          String binary="";
          while(decimal>0){
                int rem=decimal%2;
                binary=rem+binary;//concatenation 1 "00"
                decimal/=2;
           }
          System.out.print(binary);
     }
}
//100
import java.util.*;
//1 0 1 0
//1* 2^3 0* 2^2 1* 2^1 0*2^0 ----2+8==10
public class BinaryToDecimal {
     public static void main(String[] args) {
          // TODO Auto-generated method stub
          int binary=1010;
          int decimal=0;
          int i=0;
```

```
while(binary>0){
                 int rem= binary%10;
                 decimal+=rem*Math.pow(2, i);
                 binary/=10;
                 i++;
           System.out.print(decimal);
     }
}
//10
import java.util.*;
public class AdditionUtilSingleDigits {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no=12345678;
           int total=0;
           total=no;
           while(total>9){
                 no=total;
                 total=0;
                 while(no>0){
                       int rem=no%10;
                      total=total+rem;
                       no/=10;
                 }
           System.out.print(total);
     }
}
//9
import java.util.*;
public class ArmstrongNo {
```

```
public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=153;
           int arm=0;
           int no2=n;
           while(n>0){
                 int rem=n%10;
                 arm=arm+(rem*rem*rem);
                 n/=10;
           System.out.println(arm);
           if(no2==arm){
                System.out.println("yes");
           }
     }
}
//153
//yes
import java.util.*;
//145
//1! + 4!+ 5! ===145
public class StrongNumber {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int n=145;
           int sum=0;
           while(n>0){
                 int rem=n%10;
                 int no=rem;
                 int fact=no;
                while(no>1){
                      no--;
                      fact=fact*no;
                 }
                 sum=sum+fact;
                 n/=10;
           System.out.print(sum);
     }
```

```
}
//145
import java.util.*;
public class NeonNumber {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int no=9;
           int sum=0;
           int sq=no*no;
           while(sq>0){
                 int rem=sq%10;
                 sum=sum+rem;
                 sq/=10;
           if(sum==no){
                 System.out.print("neon");
           }
           else{
                 System.out.print(" not neon");
           }
     }
}
package array;
import java.util.*;
public class ReverseAnArray {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int a[]={10,20,30,40,50,60};
           int n=a.length;
           int i=0,j=n-1;
           while(i<j)</pre>
           {
```

```
int t=a[i];
                  a[i]=a[j];
                  a[j]=t;
                  i++;
                  j--;
            for(int k=0;k<n;k++){</pre>
                  System.out.print(a[k]+" ");
            }
      }
}
//60 50 40 30 20 10
package array;
import java.util.*;
public class ArrayLeftShift {
      public static void main(String[] args) {
            // TODO Auto-generated method stub
            int a[]={10,20,30,40,50};
            int t=a[0];
            int i=0;
            while(i<a.length-1){</pre>
                  a[i]=a[i+1];
                  i++;
            }
            a[a.length-1]=t;
            for(int k=0;k<a.length;k++){</pre>
                  System.out.print(a[k]+" ");
            }
      }
//20 30 40 50 10
//Linear Search
//How many times <u>ele</u> <u>occurred</u>
```

```
package array;
import java.util.*;
public class ArrayRightShift {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int a[]={10,20,30,40,50,60};
           int n=a.length;
           int t=a[n-1];
           for(int i=n-1;i>0;i--){
                 a[i]=a[i-1];
           a[0]=t;
           for(int i=0;i<n;i++){</pre>
                 System.out.print(a[i]+" ");
           }
     }
//60 10 20 30 40 50
package array;
import java.util.*;
public class ArrayLeftShiftTwice {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int a[]={10,20,30,40,50};
           int t1=a[0];
           int t2=a[1];
           int i=0;
           while(i<a.length-2){</pre>
                 a[i]=a[i+2];
                 i++;
           a[a.length-2]=t1;
           a[a.length-1]=t2;
```

```
for(int k=0;k<a.length;k++){</pre>
                 System.out.print(a[k]+" ");
           }
     }
//30 40 50 10 20
package array;
import java.util.*;
public class CopyAllEleOfArrInReverseOrder {
     public static void main(String[] args) {
           // TODO Auto-generated method stub'
           int a[]={10,20,30,40,50};
           int n=a.length;
           int b[]=new int[n];
           int i=0,j=n-1;
           while(i<n){</pre>
                 b[i]=a[j];
                 i++;
                 j--;
           }
           for(int k=0;k<a.length;k++){</pre>
                 System.out.print(b[k]+" ");
           }
     }
//50 40 30 20 10
package array;
import java.util.*;
public class CopyingOnlyNegative {
     public static void main(String[] args) {
           // TODO Auto-generated method stub
           int a[]={-5,8,-3,-2,10};
```

```
int n=a.length;
            int c=0;
            for(int i=0;i<n;i++){</pre>
                  if(a[i]<0){
                        C++;
                  }
            }
            int b[]=new int[c];
            int j=0;
            for(int i=0;i<n;i++){</pre>
                  if(a[i]<0){
                     b[j++]=a[i];
                  }
            }
            for(int i=0;i<c;i++){</pre>
                  System.out.print(b[i]+" ");
            }
}
//-5 -3 -2
```