

### Divisors.java

```
public class Divisors {  
    public static void main(String[] args)  
    {  
        int a = Integer.parseInt(args[0]);  
        for( int i=1; i<=a; i++)  
            {if(a % i == 0)  
                System.out.println(i);  
            }  
        }  
    }  
}
```

## Reverse.java

```
public class Reverse {
    public static void main(String[] args)
    {
        String a = (args[0]);
        String z = "";
        int n = a.length();
        int mid = a.length()/2;

        for (int i=n-1; i>=0; i--)
            {char c = a.charAt(i);
              z=z+c;
            }

        System.out.println (z);
        System.out.println ("The middle character is " +
z.charAt(mid));
    }
}
```

## InOrder.java

```
public class InOrder {
public static void main(String[] args)
{
int min = (int) ((Math.random () * (10-0))+0);
System.out.print (min + " ");

int num2 = (int) ((Math.random () * (10-0))+0) ;
    while (num2>min)
        {System.out.print (num2 + " ");
         min=num2;
         num2 = (int) ((Math.random () * (10-0))+0) ;}
    }

    {
    }
}
```

### DamkaBoard.java

```
public class DamkaBoard {
public static void main(String[] args)
{
int num = Integer.parseInt(args[0]);
int i=0;

while (i<num)
{
    int r = 0;
    while (r<num)
    {
        if (i%2 !=0 && r == num-1)
        {
            System.out.print ("*");
        }

        else
        {
            System.out.print ("* ");
        }

        r++;
    }

    if (i%2!=0)
    {
        System.out.println ();
    }
    else
    {
        System.out.println();
        System.out.print(" ");
    }

    i++;
}
}
```

## Perfect.java

```
public class Perfect {
public static void main(String[] args)
{
int a = Integer.parseInt(args[0]);
String s = " ";
int sum = 0;
for(int i=1; i<a; i++)
{
    if(a % i == 0)
    {sum += +i;
    if (i==1)
    {
        s += i;
    }

    else
    {
        s += " + " + i;
    }
    }

}

if (sum == a)
{System.out.println(a + " is a perfect number
since " + a + " =" + s);
}
else
{    System.out.println(a + " is not a perfect
number");
}

}
}
```

## OneOfEachStats.java

```
import java.util.Random;
public class OneOfEachStats {
public static void main(String[] args)
{
    // Gets the two command-line arguments
    int num = Integer.parseInt(args[0]);
    int seed = Integer.parseInt(args[1]);
    // Initailizes a random numbers generator with the given seed
    value
    Random generator = new Random(seed);

    boolean g = false;
    boolean b = false;
    double bORg = (double) ((generator.nextDouble () * (1-0))+0);
    double countChild = 0;
    int current=0;
    int family2=0;
    int family3=0;
    int family4=0;

    for (int i=0;i<num;i++)
    {
        while (g==false || b==false)
        {
            if (bORg<0.5)
                g = true;

            if (bORg>=0.5 && bORg<1 )
                b = true;

            current++;
            countChild++;
            bORg = (double) ((generator.nextDouble () * (1-
0))+0);
        }

        if (current==2)
            family2++;
        if (current==3)
            family3++;
        if (current>=4)
            family4++;
        g = false;
    }
}
```

```
        b = false;
        current = 0;
    }
    System.out.println (" ");
    double avg = countChild/num;
    System.out.println("Average: " +avg+ " children to get at
least one of each gender.");
    System.out.println("Number of families with 2 children: " +
family2);
    System.out.println("Number of families with 3 children: " +
family3);
    System.out.println("Number of families with 4 or more
children: " + family4);

    if ((family2>family4) && (family2>family3))
        System.out.println ("The most common number of children
is 2.");
    else
        if ((family3>family4) && (family3>family2))
            System.out.println ("The most common number of children
is 3.");
        else
            System.out.println ("The most common number of children
is 4 or more.");
    }
}
```