Divisors

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

        }

    }
}
```

Reverse

```
public class Reverse {
    public static void main (String[] args){
        String str = args[0];
        String newStr = "";
int n = str.length();

        for(int i=n-1;i>=0;i--){
newStr+=str.charAt(i);
        }

        char middle = newStr.charAt(n/2);

        System.out.println(newStr);
        System.out.println("The middle character is "+
middle);
    }
}
```

InOrder

```
public class InOrder {
    public static void main (String[] args) {          int
n=(int)(Math.random()*10);
        int nextNum=n;
         do{              n = nextNum;
            System.out.print(n+" ");              nextNum =
(int)(Math.random()*10);
        }
        while(n<=nextNum);
    }
}
```

Perfect Numbers

```
public class Perfect {
    public static void main (String[] args) {
int n = Integer.parseInt(args[0]);
        int sum = 1;
        String perfect = n + " is a perfect number since " + n
+ " = 1";
        String notPerfect = n + " is not a perfect number" ;

        for(int i=2;i<n;i++){
if(n%i==0){
sum+=i;
                perfect+=" + "+i;
            }

        }

        if(sum==n) System.out.println(perfect);
else System.out.println(notPerfect);

    }
}
```

Damka Board

```java
public class DamkaBoard {
    public static void main(String[] args) {
        //// Put your code here
        int n = Integer.parseInt(args[0]);

        for(int i=1;i<=n;i++){
            if(i%2==0){
            System.out.print(" ");
            }

            for(int j=1;j<=n;j++){

            if(j<n){
            System.out.print("* ");
            }
            else System.out.print("*");

            }
            if(i%2==1){
            System.out.print(" ");
            }

            System.out.println();

        }
    }
}
```

One of Each

```
public class OneOfEach {
    public static void main (String[] args) {
        boolean boy = false;
boolean girl = false;          int
numOfChildren = 0;

        while (!(boy&&girl)) {
numOfChildren++;
        int gender = (int)(Math.random()*2);

        if (gender==0) {
            System.out.print("b ");
            boy = true;
        }
else {
            System.out.print("g ");
            girl = true;
        }

        }
        System.out.println();
        System.out.println("You made it... and you now have "
+ numOfChildren + " children.");
    }
}
```

One of Each Stats(final version)

```
public class OneOfEachStats {
    public static void main (String[] args) {
        // Gets the two command-line arguments
        int T = 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);

        int allChildren = 0;
        int families2 = 0;
        int families3 = 0;
        int families4 = 0;
        String common;

        for(int i=0;i<T;i++){

        String children = "";

        boolean boy = false;
        boolean girl = false;

        while (!(boy&&girl)) {

        int gender = (int)(generator.nextDouble()*2);

        if (gender==0) {
            children+="b";
            boy = true;
        }
        else {
            children+="g";
            girl = true;
        }

        }
        allChildren+=children.length();

        if(children.length()==2){
            families2++;
        }
        else if(children.length()==3){
            families3++;
```

```
        } else{
            families4++;
        }}


        double average = (double)(allChildren)/T;

        int max = Math.max(families2,Math.max(families3,
families4));

        if(max==families2){
            common = "2.";
        } else if(max==families3){
            common = "3.";
        } else{
            common = "4 or more.";
        }

        System.out.println("Average: " + average + " children
to get at least one of each gender.");
        System.out.println("Number of families with 2
children: " + families2);
        System.out.println("Number of families with 3
children: " + families3);
        System.out.println("Number of families with 4 or more
children: " + families4);
        System.out.println("The most common number of children
is "+common);

        //// In the previous version of this program, you used
a statement like:
        //// double rnd = Math.random();
        //// Where "rnd" is the variable that stores the
generated random value.
        //// In this version of the program, replace this
statement with:
        //// double rnd = generator.nextDouble();
        //// This statement will generate a random value in
the range [0,1),
        //// just like you had in the previous version, except
that the
        //// randomization will be based on the given seed.
        //// This is the only change that you have to do in
the program.

    }
}
```