Divisors

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

Reverse

```java
class Reverse {
    public static void main (String[] args){
        String s = args[0];
        String a = "";
        int b = s.length() - 1;
        while ( b >= 0) {char x = s.charAt (b);
        a = a + x; b = b - 1;}
        System.out.println(a);
        System.out.println( "The middle character is " +
s.charAt((s.length()-1)/2));
    }
}
```

InOrder

```java
class InOrder {

    public static void main (String[] args) {

        int x = (int)(Math.random()*10.0);

        System.out.print(x + " ");

        int y = (int)(Math.random()*10.0);

        while (x <= y) {System.out.print(y + " "); int z =
(int)(Math.random()*10.0);

    if (z >= y) y = z; else y = x - 1;}

    }

}
```

Perfect

```java
class Perfect {
    public static void main (String[] args) {
        int a = Integer.parseInt(args[0]);
        int b = 1;
        int test = 0;
        String s = "";
        while (a > b ) {if ((a % b) == 0) {
            test = test + b; s = s + b + " + ";} b = b + 1;}
        s = s.substring(0, s.length()-2);
        if (test - a == 0) {System.out.println(a + " is a perfect
number since " + a + " = " + s);
        }else {System.out.println(a + " is not a perfect number");}
    }
}
```

DamkaBoard

```java
class DamkaBoard {

    public static void main(String[] args) {
        int a = Integer.parseInt(args[0]);
        String s = "";
        for (int i = 0; i < a; i++) {
            if (i<a-1) {
            s = s + "* ";
        } else {
            s = s + "*";}
        }
        for (int i = 0; i < a; i++) {
            if (i % 2 == 0) {
                System.out.println(s + " ");
            } else {
                System.out.println(" " + s);
            }
        }
        System.out.println();
    }
}
```

One Of Each

```java
class OneOfEach {
    public static void main (String[] args) {
        double b = Math.random();
        double g = Math.random();
        String s = "";
        boolean boy = false;
        boolean girl = false;
        while (!(boy==true&&girl==true)) {
            if (b>g) { s = s +"b ";
        b = Math.random();
        g = Math.random();
        boy = true;
            }else{s = s + "g ";
        b = Math.random();
        g = Math.random();
        girl = true;}}
        int x = s.length()/2;
        System.out.println(s);
        System.out.println("you made it... and you now have " + x + "
children.");
    }
}
```

One Of Each Stats

```java
import java.util.Random;

/**
 *  Computes some statistics about families in which the parents decide
 *  to have children until they have at least one child of each gender.
 *  The program expects to get two command-line arguments: an int value
 *  that determines how many families to simulate, and an int value
 *  that serves as the seed of the random numbers generated by the program.
 *  Example usage: % java OneOfEachStats 1000 1
 */
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 familywithtwo = 0;
        int familywiththree = 0;
        int familywithmore = 0;
        double z;
```

```java
double avrage = 0.0;
for (int index = 0; index < T ; index++) {
    String s = "";
    boolean boy = false;
    boolean girl = false;
    while (!(boy==true&&girl==true)) {
        avrage++;
        z = generator.nextDouble();
        if (z >= 0.5) {
            s = s +"b ";
            boy = true;
        } else {
            s = s + "g ";
            girl = true;
        }
    }
    int x = s.length()/2;
    if (x == 2) {
        familywithtwo++;
    }
     else if (x == 3) {
        familywiththree++;
    } else {
        familywithmore++;
    }
}
avrage = avrage / T;
System.out.println("Average: " + avrage + " children to get at
least one of each gender.");
```

```java
        System.out.println("Number of families with 2 children: " +
familywithtwo);

        System.out.println("Number of families with 3 children: " +
familywiththree);

        System.out.println("Number of families with 4 or more
children: " + familywithmore);

        if (familywithtwo > familywithmore && familywithtwo >
familywiththree)

        System.out.println("The most common number of children is
2.");

        if (familywiththree > familywithmore && familywiththree >
familywithtwo)

        System.out.println("The most common number of children is
3.");

        if (familywithmore > familywithtwo && familywithmore >
familywithtwo)

        System.out.println("The most common number of children is 4 or
more.");

        }
        //// 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.
```

}