Divisors:

```java
public class Divisors {
    public static void main(String[] args) {
        //// Put your code here
        int num = Integer.parseInt(args[0]);
        // we use a for loop to check if the number divisors.
        for (int i = 1; i <= num; i++) {
            if (num % i == 0)
                System.out.println(i);
        }
    }
}
```

Reversing a string:

```java
public class Reverse {
    public static void main(String[] args) {
        //// Put your code here
        String word = args[0];
        int x = word.length() - 1;
        for (int i = 0; i < word.length(); i++) {
            System.out.print(word.charAt(x));
            x--;
        }
        System.out.println("");
        System.out.println(word.charAt(word.length() / 2));
    }
}
```

In Order:

```
public class InOrder {
    public static void main(String[] args) {
        //// Write your code here
        int Before, After;
        Before = (int) ((Math.random() * (10 - 0)) + 0);
        System.out.println(Before);
        Boolean Tester = true;
        while (Tester == true) {
            After = (int) ((Math.random() * (10 - 0)) + 0);
            if (Before > After)
                Tester = false;
            else if (Before < After) {
                System.out.println(After);
                Before = (int) ((Math.random() * (10 - 0)) + 0);
            }

        }
    }
}
```

Perfect number:

```java
public class Perfect {
    public static void main(String[] args) {
        //// Put your code here
        int num = Integer.parseInt(args[0]);
        if (num == Divisors(num)) {
            System.out.print(+num + " is a perfect number since " + num + " =
1");
            for (int i = 2; i <= num; i++) { // started from i=2, so i dont
print the number 1 twice
                if (num % i == 0 && num != i) // the use of this if to print
the divisors without the number itself
                    System.out.print(" + " + i);
            }
        } else
            System.out.println(+num + " is not a perfect number");
    }

    // to see if it`s a perfect number or not
    public static int Divisors(int num) {
        int sum = 0;
        for (int i = 1; i <= num; i++) {
            if (num % i == 0)
                sum += i;
        }
        return sum -= num;

    }
}
```

Damka Board:

```java
public class DamkaBoard {
    public static void main(String[] args) {
        int number = Integer.parseInt(args[0]);
        Draw(number);
        // if the number is odd to print the last row
        if (number % 2 == 1)
            for (int j = 0; j < number; j++) {
                System.out.print("* ");
            }
    }

    // Drawing of the Damka Board
    public static void Draw(int number) {
        for (int i = 0; i < number / 2; i++) {
            for (int j = 0; j < number; j++) {
                System.out.print("* ");
            }
            System.out.println("");
            for (int m = 0; m < number; m++) {
                System.out.print(" *");
            }
            System.out.println("");
        }
    }
}
```

OneOfEach:

```
public static void main(String[] args) {
        //// Put your code here
        int number, sum = 0, m = 1;
        boolean boy = false, girl = false;
        while (m == 1) {
            number = (int) ((Math.random() * (10 - 0)) + 0);
            if (number % 2 == 0) {
                girl = true;
                System.out.print("g ");
                sum++;
            } else {
                boy = true;
                System.out.print("b ");
                sum++;
            }
            if (boy == true && girl == true)
                m = 0;
        }
        System.out.println("");
        System.out.print("You made it... and you now have " + sum + "
children.");
    }
}
```

OneOfEachStats1:

```
public class OneOfEachStats1 {
    public static void main(String[] args) {
        int randomizer, sum = 0, m = 1, sumf1 = 0, sumf2 = 0, sumf4 = 0;
        double ttries = Integer.parseInt(args[0]), sumchild = 0;
        boolean boy = false, girl = false;
        for (int i = 0; i < ttries; i++) {
            while (m == 1) {
                randomizer = (int) ((Math.random() * (10 - 0)) + 0);
                if (randomizer % 2 == 0) {
                    girl = true;
                    sum++;
                } else {
                    boy = true;
                    sum++;
                }
                if (boy == true && girl == true)
                    m = 0;
            }
            m = 1;
            sumchild += sum;
            boy = false;
            girl = false;
            if (sum == 2)
                sumf1++;
            else if (sum == 3)
                sumf2++;
            else
                sumf4++;
            sum = 0;
        }
        System.out.println("Average: " + sumchild / ttries + " children to get
at least one of each gender.");
        System.out.println("Number of families with 2 children: " + sumf1);
        System.out.println("Number of families with 3 children: " + sumf2);
        System.out.println("Number of families with 4 or more children: " +
sumf4);
        Printer(sumf1, sumf2, sumf4);
    }

    // this is for which is the bigger number of families
    public static void Printer(int sumf1, int sumf2, int sumf4) {
        if (sumf1 > sumf2)
            System.out.println("The most common number of children is 2.");
        else if (sumf2 > sumf1)
            System.out.println("The most common number of children is 3.");
        else if (sumf2 > sumf4)
            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.");
    }
}
```

OneOfEachStats final:

```
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);

        //// 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.
        int sum = 0, m = 1, sumf1 = 0, sumf2 = 0, sumf4 = 0;
        double sumchild = 0, randomizer;
        boolean boy = false, girl = false;
        for (int i = 0; i < T; i++) {
            while (m == 1) {
                randomizer = generator.nextDouble();
                if (randomizer <= 0.5) {
                    girl = true;
                    sum++;
                } else {
                    boy = true;
                    sum++;
                }
                if (boy == true && girl == true)
                    m = 0;
            }
            m = 1;
            sumchild += sum;
```

```
            boy = false;
            girl = false;
            if (sum == 2)
                sumf1++;
            else if (sum == 3)
                sumf2++;
            else
                sumf4++;
            sum = 0;
        }
        System.out.println("Average: " + sumchild / T + " children to get
atleast one of each gender.");
        System.out.println("Number of families with 2 children: " + sumf1);
        System.out.println("Number of families with 3 children: " + sumf2);
        System.out.println("Number of families with 4 or more children: " +
sumf4);
        Printer(sumf1, sumf2, sumf4);
    }

    public static void Printer(int sumf1, int sumf2, int sumf4) {
        if (sumf1 > sumf2)
            System.out.println("The most common number of children is 2.");
        else if (sumf2 > sumf1)
            System.out.println("The most common number of children is 3.");
        else if (sumf2 > sumf4)
            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.");
    }
}
```