Divisors.java

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

Reverse.java

```java
public class Reverse {
    public static void main (String[] args){
        String word = args[0];
        String reversedString="";
        char middleLetter=word.charAt(word.length()/2-1);
        if (word.length()%2==1){
            middleLetter=word.charAt(word.length()/2);
        }
        for (int i = word.length()-1; i >= 0; i--) {
            reversedString = reversedString + word.charAt(i);
        }
        System.out.println(reversedString);
        System.out.println("The middle character is " + middleLetter);
    }
}
```

InOrder.java

```java
public class InOrder {
    public static void main (String[] args) {
        int randomNum1 = (int)((Math.random()) *10);
        int randomNum2;
        do {
            System.out.print(randomNum1 + " ");
            randomNum2=randomNum1;
            randomNum1 = (int)((Math.random()) *10);
        } while (randomNum2<=randomNum1);
    }
}
```

DamkaBoard.java

```java
public class DamkaBoard {
    public static void main(String[] args) {
        int n = Integer.parseInt(args[0]);
        for (int i = 0; i < n; i++) {
            for (int j = 0; j < n; j++) {
                if (i%2==1) {
                System.out.print(" *");
                }
                else{
                System.out.print("* ");
                }

            }
            System.out.println("");
        }
    }
}
```

Perfect.java

```java
public class Perfect {
    public static void main (String[] args) {
        int number = Integer.parseInt(args[0]);
        int sum = 1;
        String perfectNumberString = number + " is a perfect number
since " + number +" = 1";
        for (int i = 2; i < number; i++) {
            if (number%i==0) {
                sum += i;
                perfectNumberString +=" + " + i ;
            }
        }
        if (sum==number) {
            System.out.println(perfectNumberString);
        }
        else{
            System.out.println(number + " is not a perfect number");
        }
        //// Put your code here
    }
}
```

OneOfEachStats.java

```
import java.util.Random;
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);
        double average = 0;
        int twoChildren = 0;
        int threeChildren = 0;
        int fourOrMoreChildren = 0;
        int sumOfAllChildren = 0;
        int rnd;
        String mostCommon = "The most common number of children is ";
        for (int i = 0; i < T; i++) {
            boolean girl = false;
            boolean boy = false;
            int count = 0;
            while (!girl || !boy) {
                rnd = (int)(generator.nextDouble()*2+1);
                count++;
                if (rnd==1){
                    girl = true;
                }
                else{
                    boy = true;
                }

            }
            if (count==2){
                twoChildren++;
            }
            else if(count==3){
                threeChildren++;
```

```
            }
            else{
                fourOrMoreChildren++;
            }
            sumOfAllChildren += count;
        }


        average = sumOfAllChildren/(double)T;
        System.out.println("Average: " + average + " children to get
at least one of each gender.");
        System.out.println("Number of families with 2 children: " +
twoChildren);
        System.out.println("Number of families with 3 children: " +
threeChildren);
        System.out.println("Number of families with 4 or more
children: " + fourOrMoreChildren);

        if (twoChildren>threeChildren) {
            if (twoChildren>fourOrMoreChildren) {
                mostCommon += "2";
            }
        }
        else if (threeChildren>fourOrMoreChildren) {
            mostCommon += "3";
        }
        else{
            mostCommon += "4";
        }
        System.out.println(mostCommon + ".");

    }
}
```