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

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

```java
public class InOrder {
    public static void main (String[] args) {
        int rand = (int)(Math.random() * 10);
        int i = 0;
        while (rand >= i) {
            System.out.print(rand + " ");
            i = rand;
            rand = (int)(Math.random() * 10);
        }
    }
}
```

```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 count2 = 0, count3 = 0, count4 =
0;
      double sum = 0;
      for (int i = 0; i < T; i++) {
         boolean boy = false, girl = false;
         int count = 0;
         while (!boy || !girl) {
            count += 1;
            if (generator.nextDouble() >
0.5) {
               boy = true;
            }
            else {
               girl = true;
            }
         }
         sum += count;
         if (count == 2) count2++;
         else if (count == 3) count3++;
         else count4++;
```

```
        }
        System.out.println("Average: " +
sum / T + " children to get at least one of
each gender.");
        System.out.println("Number of
families with 2 children: " + count2);
        System.out.println("Number of
families with 3 children: " + count3);
        System.out.println("Number of
families with 4 or more children: " +
count4);
        if (count4 > count3 && count4 >
count2) {
            System.out.println("The most
common number of children is 4 or
more.");
        }
        else if (count3 > count4 && count3 >
count2) {
            System.out.println("The most
common number of children is 3.");
        }
        else {
            System.out.println("The most
common number of children is 2.");
        }
    }
}
```

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

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

    }
}
```