

```
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("\n");  
            if (i % 2 == 0) System.out.print(" ");  
            System.out.println();  
        }  
    }  
}
```

```
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);  
            }  
        }  
    }  
}
```

```
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);  
        }  
    }  
}
```

```

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]);
        // Initializes 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 ((int)(Math.round(generator.nextDouble())) == 0) {
                    boy = true;
                }
                else {
                    girl = true;
                }
            }
            sum += count;
            if (count == 2) count2 += 1;
            if (count == 3) count3 += 1;
            if (count >= 4) count4 += 1;
        }
        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.");
        }
    }
}

```

```
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;  
                str += i + " + ";  
            }  
        }  
        if (sum == N) {  
            System.out.println(str.substring(0, str.length() - 2));  
        }  
        else {  
            System.out.println(N + " is not a perfect number");  
        }  
    }  
}
```

```
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));  
        }  
    }  
}
```