

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

```
import java.lang.Math;
public class Reverse {

    public static void main (String[] args){
        String s= args[0];
        int lenght= s.length();
        for(int i=lenght-1; i>=0; i--) {
            System.out.print(s.charAt(i));

        }
        System.out.println();

        if(lenght%2==0) {
            int middle= (lenght/2) - 1;
            System.out.println("The middle character is " + s.charAt(middle));
        } else{
            double middle1= lenght/2;
            int middle= (int)Math.floor(middle1);
            System.out.println("The middle character is " + s.charAt(middle));
        }

    }

}
```

```
public class InOrder {
    public static void main (String[] args) {
        int number= (int) (Math.random() * 11);
        int followinNumber;
        String seq= "" + number;

        do{
            followinNumber= (int) (Math.random() * 11);

            if(followinNumber<number) {
                break;
            }
            seq= seq + " " + followinNumber;
            number = followinNumber;

        } while (number <= followinNumber);

        System.out.println(seq);

    }
}
```

```
public class Perfect {
    public static void main (String[] args) {
        int number= Integer.parseInt(args[0]);
        int divisorSum=1;
        int divisor;
        String divisorsString= "1";
        for(int i=2 ; i<number ; i++) {

            if (number%i ==0) {
                divisor= i;
                divisorsString= divisorsString + " + " + divisor ;
                divisorSum= divisorSum + divisor;}
        }

        if(divisorSum==number) {
            System.out.println(number + " is a perfect number since " +
number + " = " + divisorsString);
        } else {
            System.out.println(number + " is not a perfect number");
        }

    }
}
```

```
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 == 0) {  
                    System.out.print("* ");  
                }  
                else {  
                    System.out.print(" *");  
                }  
            }  
            System.out.println();  
        }  
    }  
}
```

```

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);
        boolean girl;
        boolean boy;
        int children;
        double child;
        int twoCount= 0;
        int threeCount=0;
        int fourCount=0;
        double avarege = 0;

        for (int i = 0; i < T; i++) {
            girl=false;
            boy=false;
            children=0;
            do{
                child= (generator.nextDouble());
                if(child>0.5) {
                    boy= true;
                    // System.out.print("b ");
                }
                else {
                    girl= true;
                    // System.out.print("g ");
                }
                children= children+1;
            }
            while(girl!=true || boy!=true);

            avarege += (double) children;

            if (children==2) {
                twoCount++;
            }
            else if(children==3) {
                threeCount++;
            }
            else{
                fourCount++;
            }
        }
    }
}

```

```
}
avarege /= (double) T;

String mode = "";
int max = 0;

max = Math.max(twoCount, threeCount);
max = Math.max(max, fourCount);

if (max == twoCount) {
    mode = "2.";
}
else if (max == threeCount) {
    mode = "3.";
}
else {
    mode = "4 or more.";
}

System.out.println("Average: " + avarege + " children to get at least
one of each gender.");
System.out.println("Number of families with 2 children: " + twoCount);
System.out.println("Number of families with 3 children: " +
threeCount);
System.out.println("Number of families with 4 or more children: " +
fourCount);
System.out.println("The most common number of children is " + mode);
```