```java
public class Divisors{

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

        }

    }

}
```

```java
public class Reverse{

    public static void main(String[]args) {
        String og = args[0];
        int length = og.length();
        for (int index = 0; index < length; index++) {
            char chr = og.charAt(length - 1 - index);
            System.out.print(chr);
        }
        System.out.println();
        if (length % 2 == 0){
        System.out.println("The middle character is" + " " +
og.charAt((length - 1) / 2));
        } else {
            System.out.println("The middle character is" + " " +
og.charAt(length / 2));
        }

    }

}
```

```java
public class InOrder {

    public static void main (String[] args) {
        int random1 = ((int)((Math.random() * 10) + 1));
        System.out.print(random1 + " ");
        int random2 =  random1;
        do {
            random2 = ((int)((Math.random() * 10) + 1));
            if (random2 >= random1) {
                System.out.print(random2 + " ");
                random1 = random2;
            } else {
                break;
            }
        } while (random2 >= random1);

    }

}
```

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

    }

}
```

```java
public class Perfect{

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

    }

}
```

```java
import java.util.Random;

public class OneOfEachStats {
    public static void main (String[] args) {
        int T = Integer.parseInt(args[0]);
        int seed = Integer.parseInt(args[1]);
        Random generator = new Random(seed);
        int fw2 = 0;
        int fw3 = 0;
        int fw4 = 0;
        int count = 0;
        for ( int a = 1; a <= T; a++){
        boolean girl = false;
        boolean boy = false;
        int children = 0;
            while (!(boy && girl)){
                double i = generator.nextDouble();
                if (i < 0.5){
                    boy = true;
                } else {
                    girl = true;
                }
                children++;
            }
            if (children == 2){
                fw2 ++;
            } else if (children == 3){
                fw3 ++;
            } else {
                fw4 ++;
            }
        count += children;
        }
        double average = ((double)count) / T;
        System.out.println("Average: " + average +  " children to get
at least one of each gender.");
        System.out.println("Number of families with 2 children: " +
fw2);
        System.out.println("Number of families with 3 children: " +
fw3);
        System.out.println("Number of families with 4 or more children:
" + fw4);
        if(fw2 >= fw3 && fw2 >= fw4){
            System.out.println("The most common number of children is
2.");
        } else if(fw3 > fw2 && fw3 >= fw4){
            System.out.println("The most common number of children is
3.");
```

```
        } else if(fw4 > fw2 && fw4 > fw2){
            System.out.println("The most common number of children is 4
or more.");
        }

    }

}
```

```java
public class OneOfEachStats1 {
    public static void main (String[] args){
        int T = Integer.parseInt(args[0]);
        int fw2 = 0;
        int fw3 = 0;
        int fw4 = 0;
        int count = 0;
        for ( int a = 1; a <= T; a++){
        boolean girl = false;
        boolean boy = false;
        int children = 0;
            while (!(boy && girl)){
                double i = Math.random();
                if (i < 0.5){
                    boy = true;
                } else {
                    girl = true;
                }
                children++;
            }
            if (children == 2){
                fw2 ++;
            } else if (children == 3){
                fw3 ++;
            } else {
                fw4 ++;
            }
        count += children;
        }
        double average = ((double)count) / T;
        System.out.println("Average: " + average +  " children to get
at least one of each gender.");
        System.out.println("Number of families with 2 children: " +
fw2);
        System.out.println("Number of families with 3 children: " +
fw3);
        System.out.println("Number of families with 4 or more children:
" + fw4);
        if(fw2 >= fw3 && fw2 >= fw4){
            System.out.println("The most common number of children is
2.");
        } else if(fw3 > fw2 && fw3 >= fw4){
            System.out.println("The most common number of children is
3.");
        } else if(fw4 > fw2 && fw4 > fw2){
            System.out.println("The most common number of children is 4
or more.");
        }
```

```
    }

}
```