```
public class Divisors {
    public static void main(String[] args) {
        int a = Integer.parseInt(args[0]);

        for (int i = 1; i <a ; i++) {
           if( a%i==0){
               System.out.println(i);
           }
        }
       if (a!=0&&a!=1){
            System.out.println(a);
       }


    }}
```

```
public class Reverse {
    public static void main(String[] args) {
        String word = args[0];
        int length=word.length()-1;
        int middleIndex= length/2;
        char middleChar=word.charAt(middleIndex);
        while (length>=0){
            System.out.print(word.charAt(length));
            length--;
        }

        System.out.println();

        System.out.println("The middle character is "+middleChar);



    }}
```

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


}

    }}
```

```
public class Perfect {

    public static void main(String[] args) {
        int a = Integer.parseInt(args[0]);
        int sum = 1;
        String perfect = a + " is a perfect number since " + a + " = 1";

        for (int i = 2; i <= a / 2 ; i++) {
            if (a % i == 0) {
                perfect = perfect + " + " + i;
                sum = sum + i;
            }
        }
        if (sum == a) {
            System.out.println(perfect);
        } else {
            System.out.println(a + " is not a perfect number");
        }
    }
}
```

```
public class DamkaBoard {

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

                }
            }
        }
    }
}
```

```
import java.util.Random;

public class OneOfEachStats {

    public static void main(String[] args) {


        int num = Integer.parseInt(args[0]);;
        int seed = Integer.parseInt(args[1]);;
        Random generator = new Random(seed);

        boolean isAGirl=false;
        boolean isABoy=false;
        double sumOfNumOfChildren=0;
        int numOfFamilyWithTwoChild=0;
        int numOfFamilyWithThreeChild=0;
        int numOfFamilyWithFourPlusChild=0;
        int numOfChild=0;
        for (int i = 0; i <t ; i++) {
            isAGirl=false;
            isABoy=false;
            numOfChild=0;
            while (!(isAGirl&&isABoy)){
                if (generator.nextDouble()*1>0.5){
                    isAGirl=true;
                }
                else {
                    isABoy=true;
                }
                numOfChild++;
                sumOfNumOfChildren++;
            }
            if (numOfChild==2) {
                numOfFamilyWithTwoChild++;
            } else if (numOfChild==3) {
                numOfFamilyWithThreeChild++;
            }else if(numOfChild>=4) {
                numOfFamilyWithFourPlusChild++;
            }       }
        double avg=  sumOfNumOfChildren /num;
        int commonNumOfChildren=
Math.max(numOfFamilyWithTwoChild,Math.max(numOfFamilyWithThreeChild,numOfFamilyWithF
ourPlusChild));
        System.out.println("Average: "+avg+ " children to get at least one of each gender.");
        System.out.println("Number of families with 2 children: "+ numOfFamilyWithTwoChild);
        System.out.println("Number of families with 3 children: "+ numOfFamilyWithThreeChild);
        System.out.println("Number of families with 4 or more children: "+
numOfFamilyWithFourPlusChild);
        String result = ((commonNumOfChildren == numOfFamilyWithTwoChild) ? " "+ 2 :
(commonNumOfChildren == numOfFamilyWithThreeChild) ? " "+3:" "+4+" or more");

        System.out.println("The most common number of children is"+result+".");
    }
}
```