```
public class Divisors {
	public static void main (String[] args) {

		int num = Integer.parseInt(args[0]);
		Boolean isDividing = false;

		 for(int i = 1; i <= num; i++){
			isDividing = (num % i == 0);
			if (isDividing){
				System.out.println(i);
			}
		 }



	}
}
```

```
public class Reverse {
	public static void main (String[] args){
		String word = args[0];
		String reversed = "";
		int middle = (int)(word.length()/2);

		for( int i=(int)(word.length()-1); i > -1; i--){
			reversed += word.charAt(i);
		}
		System.out.println(reversed);
		System.out.println("The middle character is " +
reversed.charAt(middle));
	}
}
```

```
public class InOrder {
        public static void main (String[] args) {
                int x = (int) (10.0 * Math.random());
                int y;
                String temp = "";

      do {
                        temp += x + " ";
        y = (int) (10.0 * Math.random());

        if (y < x) {
            break;
        }
        else{
                                x = y;
                        }

      } while (true);
                System.out.print(temp);
   }



}
```

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

		while (i < n){

			if ((i % 2) == 0){
				for (int j = 0; j < n; j++){
					System.out.print("* ");
				  }
			    }
			else{
				for (int j = 0; j < n; j++){
					System.out.print(" *");
				  }
			}

			System.out.println();
		  i++;
		}


	}

}
```

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

```
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]);
		int two = 0;
		int three = 0;
		int fourOrMore = 0;
		int totalSum = 0;
		Random generator = new Random(seed);
		String largest = "";


		for(int j=0; j < T; j++){		// a loop that runs as much as the T we have got

			int childSum = 0;
			boolean isGirl = false;
		   boolean isBoy = false;
```

```
                while(!isGirl || !isBoy){  // a loop that runs until we create a fam with kids of both genders
                    double x = generator.nextDouble();
                      if ( x >= 0.5 ) {
                            isGirl = true ;
                    }
                    else {
                            isBoy = true ;
                     }
                           childSum++;
                }

                     if (childSum == 2){        //sums how many families have each number of kids
                           two++;
                     }else if(childSum == 3){
                       three++;
                     }else if(childSum >= 4){
                              fourOrMore++;
                     }

                           totalSum += childSum;


            }
```

```
                if (two >= three && two >= fourOrMore) {        //finds the most
common number of kids in one fam
        largest = "2.";
    } else if (three >= two && three >= fourOrMore) {
        largest = "3.";
    } else {
        largest = "4 or more.";
    }


                double average = (double)totalSum / T;



                System.out.println("Average: " + average + " children to get at least
one of each gender.");
                System.out.println("Number of families with 2 children: " + two);
                System.out.println("Number of families with 3 children: " + three);
                System.out.println("Number of families with 4 or more children: " +
fourOrMore);
                System.out.println("The most common number of children is " +
largest);


        }
}
```