```
public class Divisors {
    public static void main (String[] args) {
    int num = Integer.parseInt(args[0]);
    int i=1;

    while (i<=num){
        if (num%i==0){
    System.out.println(i);
    }
    i++;
    }


    }
}
```

```
public class Reverse {
    public static void main (String[] args){
        String word = args[0];
        int i=word.length()-1;
        String newWord ="";
        char middleWord;

        while((i>=0)){
            newWord += word.charAt(i);
            i--;

        }
        if(word.length()%2==0){
        middleWord = word.charAt(word.length()/2-1);
        }
        else{
        middleWord = word.charAt(word.length()/2);
        }
        System.out.println(newWord);
        System.out.println("The middle character is "+middleWord);
    }
}
```

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

}
}
```

```
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>0) {
                System.out.print(" ");
            }
            for (int j=0; j<n; j++){
                if(j==n-1 && i%2>0){
                    System.out.print("*");
                }
                else{
                System.out.print("* ");
                }

                }
                System.out.println();

            }

    }
}
```

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

        int num = Integer.parseInt(args[0]);
        int I = 2;
        int sum = 1;
        String str = num +" is a perfect number since "+ num +" = 1";
        while (i<num){
        if (num%i==0){
            sum = sum+i;
            str = str+" + "+i;

         }
         i++;
        }

        if (sum==num) {
           System.out.println(str);
        }
        else{
            System.out.println(num+ " is not a perfect number");
        }
}
}
```

```java
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);

      int g = 0;
      int b = 0;
      double x;
      double avg = 0;
      int sum2 = 0;
      int sum3 = 0;
      int sum4 = 0;

      for(int i=0; i<T; i++){
      while(b==0 || g==0){
         x = generator.nextDouble();
         if (x>0.5) {
         b = b + 1;
      }
      else {
         g = g + 1;
      }
   }

      int sum = b + g;
      avg = avg + sum;

      if (sum == 2){
         sum2++;
      }
      else if (sum == 3){
         sum3++;
      }
      else{
         sum4++;
      }

      b=0;
      g=0;

    }
      avg = avg / T;
      System.out.println("Average: "+ avg + " children to get at least one of
each gender.");
      System.out.println("Number of families with 2 children: " + sum2);
      System.out.println("Number of families with 3 children: " + sum3);
```

```
        System.out.println("Number of families with 4 or more children: " +
sum4);
        if (sum2>sum3 && sum2>sum4) {
            System.out.println("The most common number of children is 2.");
        }
        else if (sum3>sum2 && sum3>sum4){
            System.out.println("The most common number of children is 3.");
        }
        else{
            System.out.println("The most common number of children is 4.");
        }



    }

}
```