```
public class Divisors {
 // public static void main (String[] args) {
    //int divisor = Integer.parseInt(args[0]);
    // int divisor2 = 1++ ;
    // if (x \% Divisor = 0);
  // System.out.println(Divisor);
 // else {
    // if (x % Divisor = 0);
    // System.out.println(1);
    // System.out.println(Divisor);
 public static void main (String[] args) {
    int divisor = Integer.parseInt(args[0]);
    for (int x = 1; x \le divisor; x + +) {
       if (divisor % x == 0) {
          System.out.println(x);
    }
```

```
public class Reverse {
  public static void main (String[] args){
    String input = args [0];
    String reverse = "";

  for (int num = input.length() - 1; num >=0; num--) {
      reverse += input.charAt(num);
    }
    System.out.println(reverse);
    Character middle = input.charAt((input.length()-1)/2);
    System.out.println("The middle character is " + middle);
}
```

```
public class InOrder {
  public static void main (String[] args) {
    int randomNum = (int) (Math.random()*(10-0+1)+0);
    int previous = 0;

  while (previous <= randomNum) {
      System.out.print(randomNum + " ");
      previous = randomNum;
      randomNum = (int) (Math.random()*(10-0+1)+0);

  }
}</pre>
```

```
public class Perfect {
 public static void main (String[] args) {
    /// Put your code here
    int perfectNum = Integer.parseInt(args[0]);
    int store = 1;
    String perfect = perfectNum + " is a perfect number since " + perfectNum + " =
    for (int x = 2; x < perfectNum; x ++) {
      if (perfectNum \% x == 0) {
         store += x;
         perfect += " + " + x;
      }
    if (store == perfectNum){
      System.out.println(perfect);
    }
    else {
      System.out.println(perfectNum + " is not a perfect number");
    }
```

```
public class DamkaBoard {
  public static void main(String[] args) {
    //// Put your code here
    int num = Integer.parseInt(args[0]);
    for (int row = 0; row < num; row++) {
        String space = "";
        if (row % 2 == 1) {
            space = " *";
        }
        else {
            space = "" *";
        }
        for (int I = 0; I < num; I++) {
            System.out.print(space);
        }
        System.out.println("");
    }
}</pre>
```

```
public class OneOfEach{
 public static void main (String[] args) {
    //// Put your code here
    int sumChildrenCount = 0;
    boolean boy = false;
    boolean girl = false;
    while (!(boy && girl)) {
      if (Math.random() < 0.5) {
         System.out.print("b"); // Print 'b' for boy
         boy = true;
      else {
         System.out.print("g"); // Print 'g' for girl
         girl = true;
      sumChildrenCount++;
    }
    System.out.println("\nYou made it... and you now have "+ sumChildrenCount+ "
children.");
```

```
public class OneOfEachStats1 {
 public static void main (String[] args) {
    int T = Integer.parseInt(args[0]);
    int totalChildren = 0;
    int twoChildrenCount = 0;
    int threeChildrenCount = 0;
    int fourOrMoreChildrenCount = 0;
    String firstMostCommon = "";
    for (int i = 0; i < T; i++) {
      int childrenCount = 0;
      boolean boyBorn = false;
      boolean girlBorn = false;
      while (!(boyBorn && girlBorn)) {
         if (Math.random() < 0.5) {
           boyBorn = true;
         } else {
           girlBorn = true;
         childrenCount++;
      totalChildren = totalChildren + childrenCount;
      if (childrenCount == 2) {
         twoChildrenCount ++;
         firstMostCommon = firstMostCommon.concat("2");
      if (childrenCount == 3) {
         threeChildrenCount ++;
         firstMostCommon = firstMostCommon.concat("3");
      if (childrenCount > 3) {
         fourOrMoreChildrenCount ++;
         firstMostCommon = firstMostCommon.concat("4");
```

```
System.out.println("Average: "+ (double) totalChildren/T + " children to get at
least one of each gender");
    System.out.println("Number of families with two children: " + twoChildrenCount);
    System.out.println("Number of families with three children: " +
threeChildrenCount);
    System.out.println("Number of families with four or more children: " +
fourOrMoreChildrenCount);
    if ((twoChildrenCount > threeChildrenCount && twoChildrenCount >
fourOrMoreChildrenCount) || (firstMostCommon.charAt(0) == '2') ){
      System.out.println("The most common number of children is 2.");
    }
    else if ( (threeChildrenCount > twoChildrenCount && threeChildrenCount >
fourOrMoreChildrenCount) || (firstMostCommon.charAt(0) == '3') ) {
      System.out.println("The most common number of children is 3.");
    else if ((fourOrMoreChildrenCount > threeChildrenCount &&
fourOrMoreChildrenCount > twoChildrenCount) || (firstMostCommon.charAt(0) == '4'
))
    {
      System.out.println("The most common number of children is 4 or more.");
    }
```