Divisors

```
public class Divisors {
   public static void main (String[] args) {
      int num = Integer.parseInt(args[0]);
      if(num != 0){
      System.out.println("1");
      }
      for (int i = 2; i <= num / 2; i++) {
         if(num % i == 0){
            System.out.println(i);
         }
      }
      System.out.println(num);
   }
}
```

Reversing a string

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

      for (int i = str.length() - 1; i >= 0; i--) {
         revStr += str.charAt(i);
      }
      System.out.println(revStr);
      System.out.println("The middle character is " + revStr.charAt(revStr.length() / 2));
   }
}
```

Lucky streak

```
public class InOrder {
   public static void main (String[] args) {
      int savePrevNum = 0;
      int temp = 0;
      int numRandom = 1;
      while (numRandom > savePrevNum) {
         savePrevNum = temp;
         numRandom = (int)(Math.random() * 10);
         if(numRandom >= savePrevNum)
         System.out.print(numRandom + " ");
         temp = numRandom;
      }
   }
}
```

Perfect Numbers

```
public class Perfect {

   public static void main (String[] args) {

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

      String outStr = "";

      int sum = 0;

      for (int i = 1; i <= (num / 2); i++) {

         if(num % i == 0){

            sum += i;

            outStr += i + " + ";

         }

      }

      if(sum == num){

         System.out.println(num + " is a perfect number since " + num + " = " +
outStr.substring(0,outStr.length() - 2));

      }else{

         System.out.println(num + " is not a perfect number");

      }

   }

}
```

Damka Board

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

One of Each

```
public class OneOfEach {
   public static void main (String[] args) {
      String str = "";
      int count = 0;
      boolean boy = false;
      boolean girl = false;
      while(boy == false || girl == false){
         double r = Math.random();
         if(r > 0.5){
            str += "g ";
            girl = true;
         }else{
            str += "b ";
            boy = true;
         }
         count++;
      }
      System.out.println(str);
      System.out.println("You made it... and you now have "+count+ " children.");
   }
}
```

One of Each Stats

```
public class OneOfEachStats1 {
   public static void main (String[] args) {
      int T = Integer.parseInt(args[0]);
      int numKids2 = 0;
      int numKids3 = 0;
      int numkids4more = 0;
      int totalChildren = 0;
      String  comminChild = "";
      for (int i = 0; i < T; i++) {
         int count = 0;
         boolean boy = false;
         boolean girl = false;
         while(boy == false || girl == false){
            double r = Math.random();
            if(r > 0.5){

               girl = true;
            }else{

               boy = true;
            }
            count++;
         }
            totalChildren +=count;
         if(count == 2){
            numKids2++;
         }else if(count == 3){
```

```
            numKids3++;
        }else{
            numkids4more++;
        }
    }
        double average = ((double)totalChildren / T) ;

        int max = (Math.max(Math.max(numKids2, numKids3),numkids4more));
        if(max == numKids2){
            comminChild = "2";
        }else if (max == numKids3) {
            comminChild = "3";
        }else{
            comminChild = "4 or more";
        }
    System.out.println("Average: " + average + " children to get at least one of each gender.");
    System.out.println("Number of families with 2 children: " + numKids2);
    System.out.println("Number of families with 3 children: " + numKids3);
    System.out.println("Number of families with 4 or more children: " + numkids4more);
    System.out.println("The most common number of children is " + comminChild + ".");
    }
}
```