Divisors

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

      if(x==0){
         System.out.println("There is No divisors for 0.");
      }

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

Lucky streak

```
public class InOrder {
   public static void main (String[] args) {
      int a = 0;
      int b = 0;

      do {
         a = (int) ((Math.random()*10));
         if (a>=b){
            System.out.print(a + " ");
            b = a;
         }

      }
      while (a>=b);

   }
}
```

Perfect Numbers

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

      if (p==0) {
         System.out.println("0 is not a perfect number");
      } else {
         for (int i=1; i<p; i++){
            if (p%i==0){
               sum += i;
               if (i!=1){
                  answer =answer + " + " + i;
               }
            }
         }

         if (p==sum){
            System.out.println(answer);
         }
         else {
            System.out.println(args[0] + " is not a perfect number");
         }
   }

   }
}
```

Damka Board

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

      for (int y=2;y<a+2;y++){

         if (y%2==0) {
            for (int i=0; i<a; i++){
               System.out.print("* ");
            }
         } else {
            for (int x=0;x<a;x++) {
               System.out.print(" *");
            }
         }
         System.out.println();
      }
   }
}
```

One Of Each Stats

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

      int T = Integer.parseInt(args[0]);
      int seed = Integer.parseInt(args[1]);
      Random generator = new Random(seed);
      int finalSum = 0;
      int c2 = 0;
      int c3 = 0;
      int c4 = 0;
      String common = "0";

      for (int i=0;i<T;i++){
         boolean girl = false;
         boolean boy = false;
         int sum = 0;

         while (!girl || !boy) {
            double rnd = generator.nextDouble();

            if (rnd>0.5){
               sum += 1;
               girl = true;
            }
            if (rnd<0.5){
               sum += 1;
               boy = true;
            }
         }
```

```
            finalSum = finalSum + sum;
            if     (sum==2)  c2 = c2+1;
            else if (sum==3)  c3 = c3+1;
            else            c4 = c4+1;
        }

        if     (c2>c3 && c2>c4)   common = "2";
        else if (c3>c2 && c3>c4)   common = "3";
        else if (c4>c2 && c4>c3)   common = "4 or more";
        else {
            if  (c2==c3 || c2==c4) common = "2";
            if  (c3==c4) common = "3";
        }
        System.out.println("Average: " + (finalSum/T) + " children to get at least one of each gender.");
        System.out.println("Number of families with 2 children: " + c2);
        System.out.println("Number of families with 3 children: " + c3);
        System.out.println("Number of families with 4 or more children: " + c4);
        System.out.println("The most common number of children is " + common + ".");
    }
}
```