Homework Turnin

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Section:	6G
Course:	TJHSST APCS 2016-17
Assignment:	02-03
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Turnin Successful!

The following file(s) were received:

Hailstone.java (1758 bytes)

```
//Author:
//Date:
import java.util.*;

public class Hailstone
{
   private static int counter = 1;
   private static String hailstones1 = "";
   private static String hailstones2 = "";

   public static void main(String[] args)
   {
      System.out.println("Hailstone Numbers!");
      System.out.print("Enter the start value: ");
      Scanner sc = new Scanner(System.in);
      int start = sc.nextInt();
      int count = hailstone(start);
      System.out.println("hailstone(" + start + ") returns " + count + " because " + hailstones1);
      System.out.println("takes " + count + " steps." );
      int count2 = hailstone(start, 1);
      System.out.println("hailstone(" + start + ") returns " + count2 + " because " + hailstones2);
      System.out.println("takes " + count2 + " steps." );


   }
      //recursive, counts the steps with a variable
   public static int hailstone(int n, int count)
   {
      if(n==1)
      {
         hailstones2+="1";
         return count;
      }
      else
         if(n%2==0)
         {
            hailstones2+=n+"-";
            count++;
            return hailstone(n/2,count);
         }
         else
         {
            hailstones2+=n+"-";
            count++;
            return hailstone(3*n+1,count);
         }
   }
      //recursive, counts the steps without a variable
   public static int hailstone(int n)
   {
      if(n==1)
```

```
        {
            hailstones1+="1";
            return counter;
        }
        else
            if(n%2==0)
            {
                hailstones1+=n+"-";
                counter++;
                return hailstone(n/2);
            }
            else
            {
                hailstones1+=n+"-";
                counter++;
                return hailstone(3*n+1);
            }
    }
}
```