```java
import components.naturalnumber.NaturalNumber;

/**
 * Put a short phrase describing the program here.
 *
 * @author Vaishnavi Kasabwala
 *
 */
public final class Hailstone3 {
    /**
     * Private constructor so this utility class cannot be instantiated.
     */
    private Hailstone3() {
    }

    /**
     * Generates and outputs the Hailstone series starting with the given
     * {@code NaturalNumber}.
     *
     * @param n
     *            the starting natural number
     * @param out
     *            the output stream
     * @updates out.content
     * @requires n > 0 and out.is_open
     * @ensures out.content = #out.content * [the Hailstone series starting with
     *          n]
     */
    private static void generateSeries(NaturalNumber n, SimpleWriter out) {
        NaturalNumber x = new NaturalNumber2(n);
        NaturalNumber zero = new NaturalNumber2(0);
        NaturalNumber one = new NaturalNumber2(1);
        NaturalNumber two = new NaturalNumber2(2);
        NaturalNumber three = new NaturalNumber2(3);
        NaturalNumber remainder = new NaturalNumber2(0);

        int count = 1;
        NaturalNumber max = new NaturalNumber2(x);

        while (x.compareTo(one) != 0) {
            out.print(x + ", ");
            remainder = x.divide(two); //when even
            if (!remainder.isZero()) {// when odd
                x.multiply(two); //restores value
                x.multiply(three);
                x.add(one);
            }
            count++;
            if (x.compareTo(max) > 0) {
                max.copyFrom(x);
            }
        }
        out.println(x);
        out.println("Length of series: " + count);
        out.println("The maximum value is: " + max);
    }

```

```
63      /**
64       * Main method.
65       *
66       * @param args
67       *            the command line arguments
68       */
69      public static void main(String[] args) {
70          SimpleReader in = new SimpleReader1L();
71          SimpleWriter out = new SimpleWriter1L();
72
73          /*
74           * Put your main program code here; it may call myMethod as shown
75           */
76
77          out.println("Enter a positive integer: ");
78          int input = in.nextInteger();
79          NaturalNumber n = new NaturalNumber2(input);
80
81          generateSeries(n, out);
82
83          /*
84           * Close input and output streams
85           */
86          in.close();
87          out.close();
88      }
89
90  }
91
```