

```
1 import components.sequence.Sequence;
4
5 /**
6  * Homework 1 Reading Formal Contract Specifications
7  *
8  * @author Sam Espanioly
9  */
10 public final class smooth {
11
12     /**
13      * No informal description here for obvious reasons...
14      *
15      * @replaces s2
16      * @requires |s1| >= 1
17      * @ensures <pre>
18      *   |s2| = |s1| - 1 and
19      *   for all i, j: integer, a, b: string of integer
20      *     where (s1 = a * <i> * <j> * b)
21      *     (there exists c, d: string of integer
22      *       (|c| = |a| and
23      *         s2 = c * <(i+j)/2> * d))
24      * </pre>
25      */
26     public static void smooth(Sequence<Integer> s1,
27                               Sequence<Integer> s2) {
28     /*
29      * Suppose seq1 = < 2, 4, 6 >, seq2 = < -5, 12 >. What are
30      * the values of seq1 and seq2 after the call smooth(seq1,
31      * seq2)?
32      * seq1 does not change according to the contract meanwhile
33      * seq2 does get replaced with something else
34      * Suppose seq1 = < 7 >, seq2 = < 13, 17, 11 >. What are
35      * the values of seq1 and seq2 after the call smooth(seq1,
36      * seq2)?
37      */
38 }
```

31 I do not know the difference between this question and the previous one

32 \* Suppose seq1 = < >, seq2 = < >. What are the values of seq1 and seq2 after the call smooth(seq1, seq2)?

33 This method does not satisfy the required clause therefore the program can do whatever it wants

34 \* Explain informally, but precisely, what the specs of smooth say about the method's behavior. In other words, explain in English what smooth is supposed to do.

35 Multiplies a bunch of string integers and actual integers then replaces one sequence but does not change the other

```
36 *
37 */
38 }
39
40 /**
41  * Default constructor--private to prevent
  instantiation.
42  */
43  private smooth() {
44      // no code needed here
45  }
46
47  /**
48   * Main method.
49   *
50   * @param args
51   *         the command line arguments; unused here
52   */
53  public static void main(String[] args) {
54      SimpleWriter out = new SimpleWriter1L();
55      out.println("");
56      out.close();
57  }
```

smooth.java

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58

59 }

60