public static Sequence<Integer> smooth(Sequence<Integer> s1) {

assert s1 != null : "Violation of: s1 is not null";

assert s1.length() >= 1 : "|s1| >= 1";

Sequence<Integer> s2 = s1.newInstance();

if (s1.length() > 1) {

int first = s1.remove(0);

int second = s1.remove(0);

s2 = smooth(s1);

int smoothedValue = (int)(((long) first + (long) second) / 2);

s2.add(0, smoothedValue);

s1.add(0, first);

}

return s2;

}

public static Sequence<Integer> smooth(Sequence<Integer> s1) {

assert s1 != null : "Violation of: s1 is not null";

assert s1.length() >= 1 : "|s1| >= 1";

Sequence<Integer> s2 = s1.newInstance();

int length = s1.length();

if (length > 1) {

int first = s1.remove(0);

for (int i = 0; i < length - 1; i++) {

int second = s1.remove(i + 1);

int smoothedValue = (int) (((long) first + (long) second) / 2);

s2.add(i, smoothedValue);

first = second;

}

}

return s2;

}