

Name: *Jonathan Smoley*

Assignment: 10

Complete & Correct:	.....	0 / 48
Tests:	.....	0 / 0
Format and Comments:	.....	6 / 6
Writeup:	.....	6 / 6

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Total Score:	.....	26 / 60
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**Comments:**

1. partial credit

**Unit test output:**

```
>>> Timed out after 120 s
==780721== Memcheck, a memory error detector
==780721== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==780721== Using Valgrind-3.15.0 and LibVEX; rerun with -h for copyright info
==780721== Command: ./hw10_test
==780721==
[=====] Running 28 tests from 1 test suite.
[-----] Global test environment set-up.
[-----] 28 tests from BasicBTreeMapTests
[ RUN      ] BasicBTreeMapTests.EmptyCheck
[      OK   ] BasicBTreeMapTests.EmptyCheck (11 ms)
[ RUN      ] BasicBTreeMapTests.InOrderInsertAndContainsCheck
```

**Performance test output:**

```
>>> Timed out after 120 s
# All times in milliseconds (msec)
# Column 1 = input data size
# Column 2 = avl map insert
# Column 3 = 2-3-4 tree map insert
# Column 4 = avl map erase
# Column 5 = 2-3-4 tree map erase
# Column 6 = avl map contains
# Column 7 = 2-3-4 tree map contains
# Column 8 = avl map find range
# Column 9 = 2-3-4 tree map find range
# Column 10 = avl map next key
# Column 11 = 2-3-4 tree map next key
# Column 12 = avl map sorted keys
# Column 13 = 2-3-4 tree map sorted keys
# Column 14 = avl map height
# Column 15 = 2-3-4 tree map height
# Column 16 = log base 2 of input size
0 0.00 0.00 0.00
```