These must be completed and shown to your lab TA by the start of your next lab.

1. Download the AVL tree source files from the course web page under Lab 6. Complete the following
   function in `avl.cpp`:

```
void balance( Node *& x ) {
  //
  // Check if node x is unbalanced (i.e., the heights of its
  // two children differ by more than one).  If it is, rebalance
  // at x using one of rotateLeft, rotateRight, doubleRotateLeft,
  // or doubleRotateRight, whichever is appropriate.
  //
```

Check that your output matches `output.txt`.