

CMP167 – Quiz #10

Instructor: Michael Iannelli

Name: _____

Results: _____

Class: _____

Date: _____

1. Linear search requires a number of steps proportional to the size of the list being searched.
 - a. True
 - b. False
2. All proper recursive definition must have exactly one non recursive base case.
 - a. True
 - b. False
3. Merge sort is an example of an $n \log n$ algorithm.
 - a. True
 - b. False
4. Exponential algorithms are general considered intractable.
 - a. True
 - b. False
5. Approximately how many iterations will it take binary search to search a list of 512 items?

In class we considered a recursive method of solving the Fibonacci sequence. This, however, is normally intractable. Write the algorithm and explain why it is intractable. For extra credit, modify the program to improve it.