1. Why are while and do/while loops used for searching and sorting instead of for loops?
2. Why is the linear search also called “sequential search”?
3. Describe the difference between the linear search and the binary search.
4. In an average case involving an array of N elements, how many times will a linear search function have to read the array to locate a specific value?
5. Why is the selection sort more efficient than the bubble sort on large arrays?
6. The _______ search algorithm steps sequentially through an array, comparing each item with the search value.
7. The _______ search algorithm repeatedly divides the portion of an array being searched in half.
8. The _______ search algorithm is adequate for small arrays but not large arrays.
9. The _______ search algorithm requires that the array’s contents be sorted.
10. If an array is sorted in _______ order, the values are stored from lowest to highest.
11. If an array is sorted in _______ order, the values are stored from highest to lowest.
12. TRUE or FALSE: Searching and sorting arrays is not very common.
13. TRUE or FALSE: In order to perform a linear search, the array must be sorted first.
14. TRUE or FALSE: All searching and sorting algorithms take the same amount of time to complete.
15. TRUE or FALSE: Unix/Linux based systems are used to power over 90% of the world’s top web servers.