Congratulations! You passed!

Grade received 100% **Latest Submission Grade** 100% **To pass** 80% or higher

Go to next item Retake the assignment in **7h 57m**

1. Where would you most likely to be asked a series of coding related questions? **1 / 1 point**

- ○ During the take-home assignment.
- ◉ Your technical interview.
- ○ During the screening.

Correct
That's correct! A technical interview will be most concerned with coding related attributes.

2. What is the mathematical process for calculating all possible binary permutations called? **1 / 1 point**

- ◉ Exponentiation
- ○ Factorial
- ○ Numeration

Correct
That's correct. This is the practice of raising a value to the power and it determines how many possible representations a binary number can have.

3. Which is the quickest: `O(n)`, `O(2n)` or `O(log(n)`? **1 / 1 point**

- ○ `O(2n)`
- ◉ `O(log(n))`
- ○ `O(n)`

Correct
That's correct. Applying a log to a value makes it very small, and is as near to instant time you can get without having instant time.

4. Space complexity is more concerned with: **1 / 1 point**

- ○ Continuum

- ○ Time
- ◉ Space

Correct
That's correct! It is a metric that establishes the space a program takes.

5. In relation to data structures mutability refers to: **1 / 1 point**

- ◉ Whether a structure can be changed after its completion.
- ○ The use of one data structure as a container to mimic another.
- ○ The initial limitations on the size that they can grow to.

Correct
That's correct. Mutability refers to an object's ability to change once it has been instantiated.

6. True or false: Lists are objects therefore can be sorted. **1 / 1 point**

- ◉ True
- ○ False

Correct
That's correct! Casting a list as an object means that it has the extra functionality to sort its contents.

7. True or false: You should leave all code used and unused when conducting a coding interview. **1 / 1 point**

- ○ True
- ◉ False

Correct
That's correct! It is natural that redundant code creeps in during the process of solving the problem. It is ok to delete these unused code segments after you see that they are no longer needed.

8. Which of the following is valid terminology for trees. **1 / 1 point**

- ☑ Branch

Correct
That's correct. This refers to a series of connected nodes.

- ☑ Root

Correct
That's correct! It is the base node in a tree.

- [x] Leaf

Correct
That's correct! A node with no children nodes.

9. What are collection classes? **1 / 1 point**

- (•) Specialized classes for data storage and retrieval.
- ( ) Collections that take a specific type of class.
- ( ) Classes that are used by data structures to give them extra functionality like sorting.

Correct
That's correct! They reflect a suite of data structures that act in unique ways and as such can be more suited to a given problem.

10. The process of storing results for later look up to save computation time is an example of what? **1 / 1 point**

- ( ) Recursion
- (•) Memoization
- ( ) Modularization

Correct
That's correct! It can seriously reduce further computation times.