**2021 Question 2: Combined Table (9 points)**

| Total Scored out of 9 |  |
| --- | --- |

+1 Declares class header: class CombinedTable and constructor header: CombinedTable(SingleTable \_\_\_,

SingleTable \_\_\_) (must not be private)

Responses can still earn the point even if they declare the class header as class CombinedTable extends SingleTable

+1 Declares appropriate private instance variables including at least two SingleTable references

Responses can still earn the point even if they declare an additional instance variable to cache the number of seats at the combined table

Responses will not earn the point if they

• declare and initialize local variables in the constructor instead of instance variables

• declare additional instance variable(s) that cache the desirability rating

• omit keyword private

• declare variables outside the class

+1 Constructor initializes instance variables using parameters

Responses can still earn the point even if they declare and initialize local variables in the constructor instead of instance variables

+1 Declares header: public boolean canSeat(int \_\_\_)

+1 Calls getNumSeats on a SingleTable object

Responses can still earn the point even if they call getNumSeats on constructor parameters or local variables of type SingleTable in the constructor

Responses will not earn the point if they call the SingleTable accessor method on something other than a SingleTable object

+1 canSeat(n) returns true if and only if sum of seats of two tables - 2 >= n

Responses can still earn the point even if they call getNumSeats incorrectly

+1 Declares header: public double getDesirability()

+1 Calls getHeight and getViewQuality on SingleTable objects

Responses can still earn the point even if they call getHeight or getViewQuality on constructor parameters or local variables of type SingleTable in the constructor

Responses will not earn the point if they call the SingleTable accessor methods on something other than a SingleTable object

+1 getDesirability computes average of constituent tables’ view desirabilities

Responses can still earn the point even if they

• call getHeight or getViewQuality on constructor parameters or local variables of type SingleTable in the constructor

• fail to return the computed average (return is not assessed)

Responses will not earn the point if they

• fail to have an if statement and a correct calculation

• choose the incorrect value (average vs. average – 10) based on evaluation of the if statement condition

• reverse a comparison

• omit either comparison

• fail to return a guess in some case