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Complexity

Solutions for those exercises.

Questions

1. Put a checkmark in the box corresponding to true statements.
 - ☐ Abstract data types have exactly one implementation.
 - ☐ Data structures are generally useful to store and retrieve data.
 - ☐ A data type generally comes with allowed operations.
 - ☐ In data structures classes, ergonomics is the main metrics to compare programs.
 - ☐ In data structures classes, hardware is generally ignored.
2. Rank the following from 1 ("best", fast to execute, slow to grow) to 5 ("worst", fast to grow, slow to execute):
 - cubic
 - linear
 - linearithmic
 - logarithmic
 - exponential
3. Complete the following sentences:
 - A quadratic order of magnitude is denoted_____.
 - A_____ order of magnitude is denoted $O(c)$.
 - A factorial order of magnitude is denoted_____.

Problems

1. Write a code snippet (no need to include `using` statements or `Main` header) that displays the sum of all the values in a `score int` array that you can suppose declared and initialized. What is the worst case time complexity of the algorithm you wrote, relative to the size n of the array `score`?