

Quiz 2 Topics Covered in 6.00SC

Algorithms

- Big O notation
- Exhaustive enumeration
- Guess and check
- Successive approximation
- Divide and conquer algorithms
- Binary search
- Merge sort*
- Hashing*
- Orders of growth
 - Exponential
 - Polynomial
 - Linear
 - Log
- Amortized analysis*

Linguistic issues

- Values, types, expressions variables
- Builtin types: int, float, string, list, dictionary, tuple
- Mutability and aliasing
- Control flow and iteration
- Functions and methods
- Input/output
- Recursion and call stacks
- Exceptions*
- Polymorphism*
- Classes, objects*

Simulations*

- Random walks
- Monte Carlo methods

Understanding data*

- Standard deviation, coefficient of variation
- Confidence intervals and levels
- Linear regression
- Plotting

Software engineering

- Debugging
- Data abstraction and inheritance*
- Specifications

Anything needed to successfully complete problem sets

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