

Algorithms and Data Structures for Data Science

lab_recursion

CS 277

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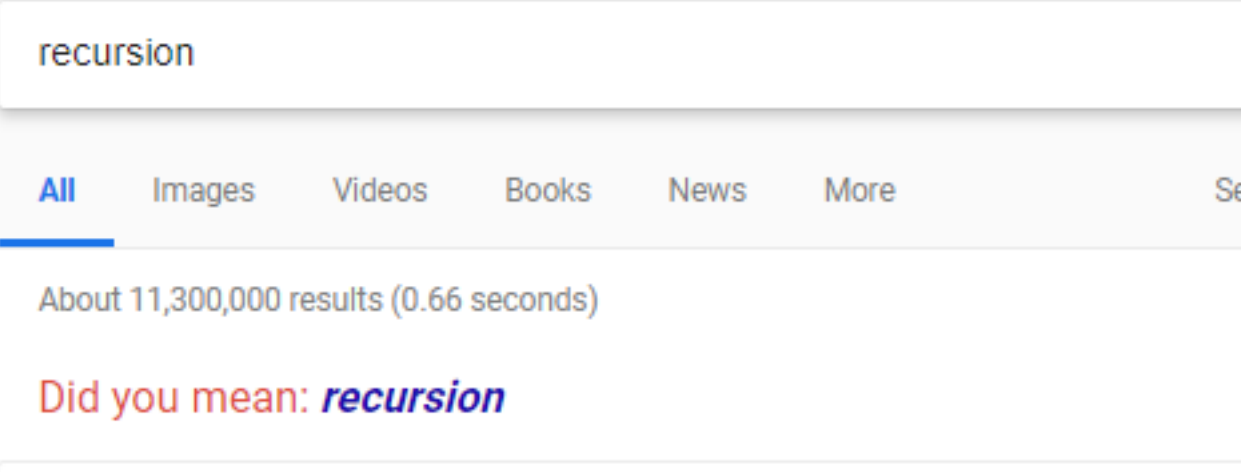
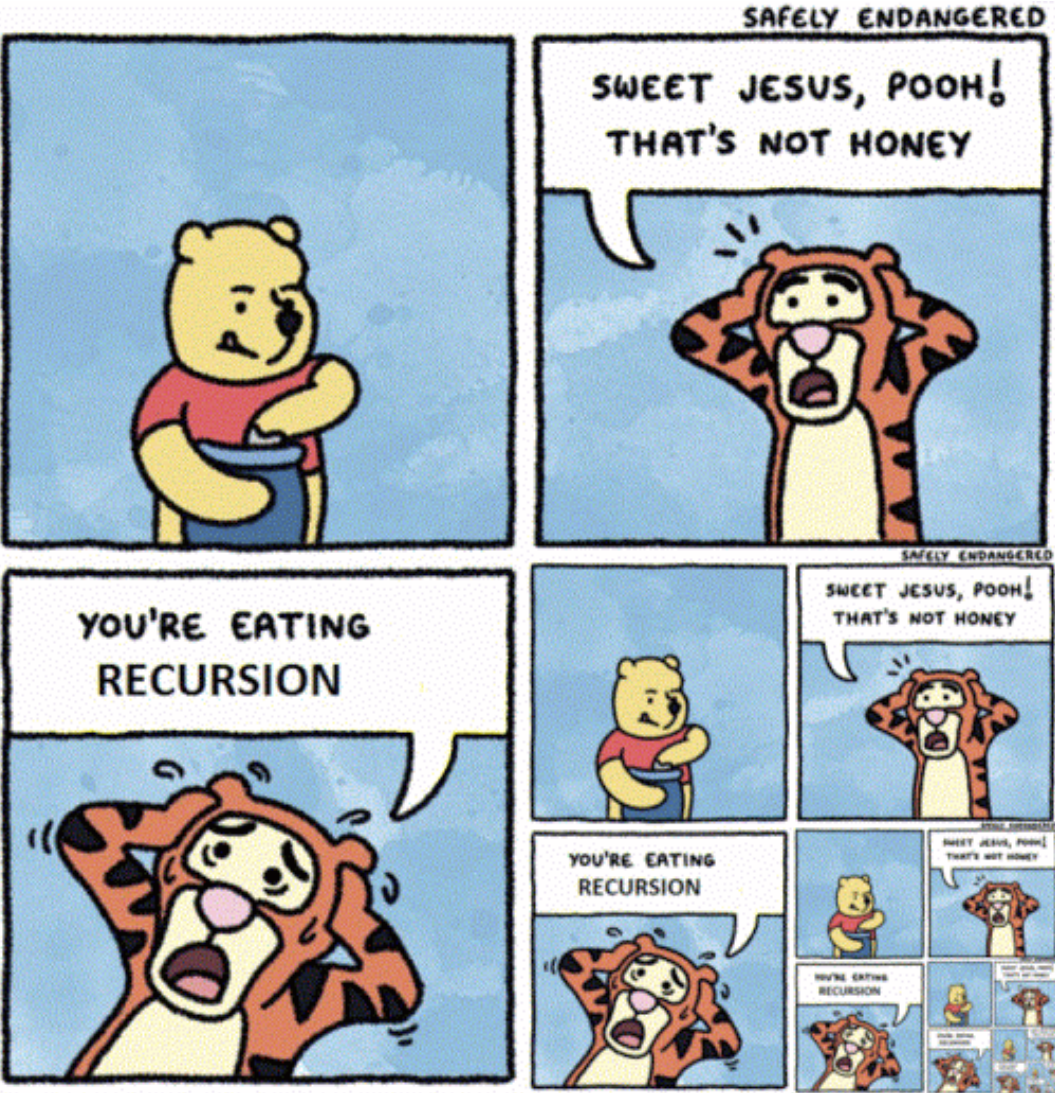
Department of Computer Science

Learning Objectives

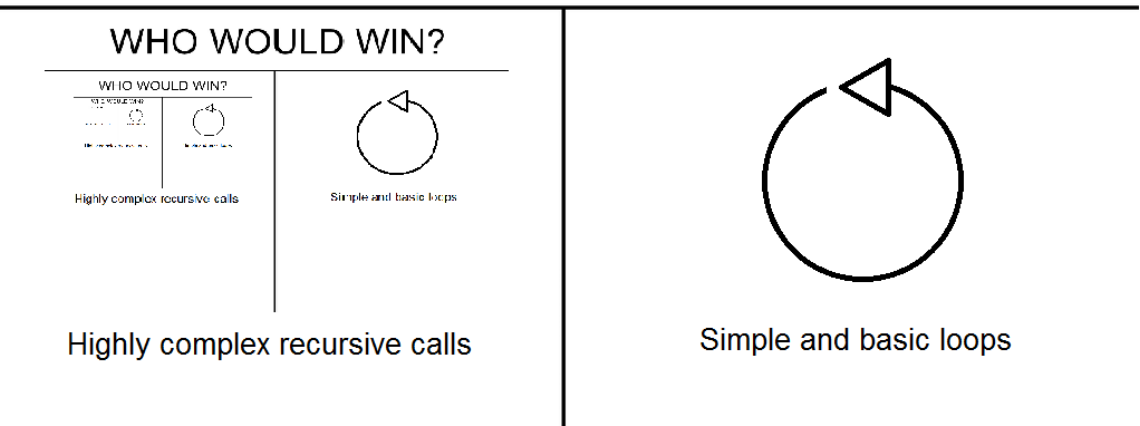
Review fundamentals of recursion

Implement recursive functions to handle a variety of tasks

Recursion



WHO WOULD WIN?



Recursion

Base Case: What is the smallest sub-problem? What is the trivial solution?

Recursive Step: How can I systematically reduce my problem to an easier one?

Combining: How can I build my solution from recursive pieces?



Recursive Exercises

Sum of Digits:

Triangle:

Palindrome:

List Partitioning: