Lecture 2 - January 9

Introduction to the Course Recursion: Part 1

Solving Problems via Data Structures References to Recursion Basics More Advanced Recursion: splitArray

Announcements/Reminders

- Assignment 1 released
- Office Hours: 3pm to 4pm, Mon/Tue/Wed/Thu
- Trial attendance check via iClicker today!

A Searching Problem





Program Optimization Problem



Program Translation Problem



Solving a Problem Recursively Rip Recursively





Problem on Recursion https://codingbat.com/prob/p185204

Given an array of ints, is it possible to divide the ints into two groups, so that the sums of the two groups are the same. Every int must be in one group or the other. Write a recursive helper method that takes whatever arguments you like, and make the initial call to your recursive helper from splitArray(). (No loops needed.)

NATH 2030 : How many wark to put 1 demants into MIG

3.91 3.92 3.91 3.92

[] [2][3] [3][2]

[][2,3]

-> [2]

[2,3]

PIPMENTS

sphiffdrage ([2,5,3]) -> trup.

splitArray $(2, 2] \rightarrow true$ splitArray $(2, 3) \rightarrow false$ splitArray([5, 2, 3]) \rightarrow true

Intuition