

CS367 Announcements

Mon, July 15th, 2013

- Midterms Graded
- P1 graded
- H5 released today
- P2 due Wed 11:59pm

Last Time

- begin Recursion

Today

- Recursion Cont.

Recall Recursion

Solving a problem by breaking it down into smaller and smaller problems of the _____ until the problem is so small that it has a _____ solution.

In programs, recursion happens when a method calls itself.

Rules for Recursion

Rule 1: Every recursive method must have at least one base case (implicit or explicit).

Rule 2: Every recursive method call must make progress towards a base case.

Tracing N choose K

Practice - Palindromes

Write a recursive method that determines if a string is a palindrome.

Examples of palindromes:

- eye
- mom
- racecar
- Never odd or even!
- Campus motto: Bottoms up, Mac.
- Doc note: I dissent. A fast never prevents a fatness. I diet on cod.

Assume: input string is not null, has been stripped of all spaces and punctuation, and is in all lower-case

Useful string methods:

- `char charAt(int index)`
- `int length()`
- `String substring(int begin, int one_past_last)`

Analyzing Complexity of Recursive Methods

Analyzing Recursive isPalindrome