

# Midterm Review

CS 350

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# Overview

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# The Road So Far

- Functional programming

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  - Recursion and datatypes

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# Functional Programming Concepts

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  - Explicit recursion: a function calling itself on different (smaller) arguments
  - Higher-order functions: capture patterns of recursion that can be re-used many times

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- Now you can write tests, since you know what valid inputs are

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  - Lists or datatype: branch using type-case



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    - E.g. "If my list is empty, how do I apply a function to each element in it?"



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- Which you choose depends on what you're trying to do

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- The way to build a function is with `lambda`