

# CS 6371: Advanced Programming Languages

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## Announcements:

1. Take assignment 1, prereq form, and website printout if you didn't get them last time.
2. Assignment 1 is due January 23. It should be turned in electronically through eLearning. (No hardcopies please!)

# Pattern Matches vs. Equality Tests

- (match **exp** with **pat** -> ... | **pat** -> ...)
  - Evaluates **one expression** and tests to see if the resulting value matches any of the **patterns**
- (if **exp=exp** then ... else ...)
  - Evaluates **two expressions** and tests to see if the resulting values are equal

# Patterns vs. Expressions

	Patterns	Expressions
	<b>Never evaluated</b>	<b>Evaluated</b>
x	a pattern that matches everything, introducing a new variable x	an expression that evaluates to the value of existing variable x
–	a pattern that matches everything	not a valid expression
x::t	a pattern that matches any list with at least one element, introducing new variables x and t	an expression that creates a new list by cons'ing a copy of element x onto a copy of list t
3	a pattern that matches the integer value 3	an expression that returns the integer value 3
3+4	not a valid pattern	evaluates to 7