

CS1101S Midterms

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Substitution model

Applicative order reduction
Evaluates innermost expression(s) before applying outer function(s)
Normal order reduction
Applies outermost function before evaluating inner expression(s)

Recursive v.s. Iterative

Recursive is a process that builds up a chain of deferred operations. Iterative is a process that does not "grow" or "shrink", i.e. the deferred operations do not increase as problem size increases.

Scope

Forms of declarations
Pre-declared names
Constant declarations
Parameters of function declarations and lambda expressions
Function names of function declarations
Scoping rule: a name refers to its **closest surrounding** declaration