Reading Exercise 0 Discussion
Imperative vs Declarative

A. Prolog, SQL, Perl
B. ML, Lisp, SQL
C. C, Java, Smalltalk
D. C#, Haskell, Spreadsheets
E. C++, Eiffel, Small talk

1. Which set(s) above are considered functional
2. Which set(s) above are considered OO
3. Which set(s) above are considered imperative
List reasons to study Programming Languages
Bootstrapping
Phases

• Place these in the order they are usually performed

• Code improvement
• Parsing
• Typing
• Lexical Analysis
• Semantic analysis
• Target code generation
Regular expressions

• Which phase of compiling makes use of regular expressions

• Code improvement
• Parsing
• Typing
• Lexical Analysis
• Semantic analysis
• Target code generation
True or false

• There are infinitely many grammars for every context free grammar

• Ambiguity is a property of a language
Language implementations

• Interpreted, compiled, byte-coded

• Order these by the amount of time they take
  – When processing the program
  – When executing the program