Before we begin

HW5  Due August 7, 10am
QZ4  will be assigned tomorrow
PP   Presentations in class
Outline

- Parlez Vous MATLAB?
- Programming Languages
- CS Courses
Generations

1GL  Machine Code
2GL  Assembly
3GL  Fortran, C, C++, Java
4GL  MATLAB, AMPL, SQL, R, Tex
5GL  Video Killed the Radio Star?
What should we learn?

- Mother Language: English =? C++
- Second Language: Java? Python?
- Third Language? Ruby? Lua?
- Multilingual?
- Spanish, Russian, Chinese?
- For Loop? Familiar?
Toolboxes, Libraries

- Collections of functions
- Open Source
- #include, import, require ...
Scripting

- Interpreter
- MATLAB, Python, Ruby, Lua
Compiling, Linking

- Compiler, Linker
- C/C++, Java, Fortran
Virtual Machine

- Machine Dependency eliminated
- Java runs on JVM
Productivity

- Write less, get done more
- Power Scripting
- Python, Ruby
Write smart and compile!

Fortran, C/C++, ATS
Web and Mobile

- HTML5, CSS3, JavaScript
- PHP, Perl
- Python, Ruby
- Android: Java
- iPhone: Objective-C