* Instruction Set Architecture (ISA)
  + Architecture – the abstract interface between hardware and lowest level software that encompasses all information necessary to write a machine language program, including instructions, registers, memory access, I/O,..
    - Enables *implementations* of varying cost and performance to run identical software
  + The combo of basic instruction set (ISA) operating system interface is called the Application binary interface (ABI)
    - ABI- User portion of the instruction set plus the operating system interfaces used by application programmers. Defines a standard for binary portability across computers.
* Performance Equation
  + CPU Time­a = / x 2.0 x 250 ps = 500 x/ ps
  + CPU Time­b = / x 1.2 x 500 ps = 600 x/ ps
    - A is 1.2x faster
  + CPU time = Instruction\_count \* CPI \* clock\_cycle
  + CPU time = (Instruction\_count \* CPI)/clock\_rate