Introduction to the Concepts of Expressions and Functions using a Computer Language

- We will be using a programming language called Scheme (also called Racket in some places)
- Designed as an introduction to the concepts of programming <u>for beginners</u>
- Available on the Web at http://www.wescheme.org

Visit this page to log in – you will be directed to your HSU login page



Logging into WeScheme

- Connect to http://www.wescheme.org
- Web site will redirect you to myHumboldt login. At myHumboldt, use just your username – your initials plus a number (for example jqs123)
- Once you're set up on wescheme.org, you'll have the ability to write and store your own function definitions

- The Definitions Window is where you write function definitions, run them, and save them
- The Interactive Window is where you can type expressions in the Scheme environment and get immediate answers





Arithmetic notation in the Scheme language

- Scheme uses <u>prefix</u> notation for its calculations, and puts parentheses () around its expressions
- For example, the addition expression 5 + 2 is (+ 5 2)
- Think of the expression as "Add 5 and 2"
- Similarly, 17 4 is written as (• 17 4)
- 5 times 6 is written as (* 5 6)
- 24 divided by 4 is written as (/ 24 4)