Lambda Calculus Notes

λ Calculus

- "super simple"

Define "term" (or "expression")

- $e ::= x$ ("variable"; we use x, y, z, etc)
- $e ::= e\ e$ ("application", think of a function applied to argument)
- $e ::= \lambda\ x\ .\ e$ ("abstraction", or "λ expression", think function mapping value of $x \rightarrow e$)

Application is left associative.

$$e1\ e2\ e3\ e4 = ((e1\ e2)\ e3)\ e4$$