

Lambda calculus

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Lambda terms

Λ is the set of λ terms.

V is an infinite set of *variables*.

$$x \in V \Rightarrow x \in \Lambda$$

$$M, N \in \Lambda \Rightarrow (M \ N) \in \Lambda$$

$$M \in \Lambda, x \in V \Rightarrow (\lambda x.M) \in \Lambda$$

$$\text{var} ::= \text{'v'} \mid \text{var''}$$

$$\lambda\text{-term} ::= \text{var} \mid \text{'('}\lambda\text{-term}\lambda\text{-term'')} \mid \text{'('}\lambda\text{'var}.\lambda\text{-term'')}$$