

$$\delta(r_i, a_{i+1})$$

$$\delta. r_i. a_{i+1}$$

$$r_i \delta' a_{i+1}$$

$$w = a_1 a_2 a_3$$

$$r_0 = q_0$$

$$r_1 = \delta(r_0, a_1) \quad r_1 = \delta(q_0, a_1)$$

$$r_2 = \delta(r_1, a_2) \quad r_2 = \delta(\delta(q_0, a_1), a_2)$$

$$r_3 = \delta(r_2, a_3) \quad r_3 = \delta(\delta(\delta(q_0, a_1), a_2), a_3)$$

$$r_3 \in F$$

$$\left( \left( \underbrace{q_0}_{\text{in}} \delta' \underbrace{a_1}_{\text{op}} \right) \delta' \underbrace{a_2}_{\text{list}} \right) \delta' \underbrace{a_3}_{\text{list}}$$

$$\cancel{f \cdot x} = \cancel{g \cdot x}$$

$$f = g$$

$$\psi \in \mathcal{P}fs$$

$$(\in \mathcal{P}fs) \cdot \checkmark$$

$$f \circ g = f \cdot (g \cdot x)$$

$$\underline{f} \cdot x \cdot y = r h_s$$

$$(f \cdot x) \cdot y = r h_s$$

$$\underline{f} \cdot x = h d f$$

$$\text{where } h d f \cdot y = r h_s$$

int

Int

String [ ]

$a \rightarrow b$

Int

1, 2, 1000

String

"Hello World"

[Int]

[1, 2, 3]

$f.x = rhs$

$x =$

[1, 2, 3]

List

$y =$

1

Int

$f.x = 2 * x$

$g.y = 2 * y$

$f.x = 2 * a$

$f.x = x + 2$

$$f \cdot x = 2 * x$$

$$\exists f \left( \forall y \quad f \cdot y = 2 * y \right)$$

$$f = \text{???} \quad \lambda\text{-expressi}$$

$$\lambda x \Rightarrow 2 * x$$

$$\lambda x \rightarrow 2 * x \quad \lambda x \rightarrow 2 * x$$

$$^ \wedge \quad f.(x, y) = x^2 + y$$

~~$$f =$$~~ 
$$f(x, y) \rightarrow x^2 + y$$

$$x = 2$$

$$2 + 3$$

$$f = \lambda x \rightarrow 2 * x$$

$$(\lambda x \rightarrow 2 * x). 3 \rightarrow 6$$

$$\begin{aligned}
 & \text{=} \quad \text{f} \cdot x = rhs \\
 & \text{=} \quad \text{f} = \lambda x \rightarrow rhs
 \end{aligned}$$

implicit

explicit

int f(int x)

{

}

explicitation

implicitation

$$x = 5$$

$$x + 2 = 7$$

$$(f \cdot x).y = rhs$$

$$f \cdot x = \lambda y \rightarrow rhs$$

$$f = \lambda x \rightarrow \lambda y \rightarrow rhs$$

$\lambda x \rightarrow \dots$   
 $nn \Leftarrow \text{Lambda } x : \dots$

$\text{def } nn(x) :$   
 $\text{return}$

$$nn = \lambda x \rightarrow rhs$$

$$nn.x = rhs$$

$$\lambda x \rightarrow 2 * x$$



$rhs : t_2$

$x : t_1$

$(\lambda x \Rightarrow rhs) : t_1 \rightarrow t_2$

$f : t_1 \rightarrow t_2$

$x : t_1$

$f.x : t_2$