

$$N \doteq 1. \quad f(x_1, x_2, x_3) = (x_2 + x_3)^{x_1 + 1}$$

$$S^3(\odot, S^3(\oplus, I_2^3, I_3^3), S^2(s, I_1^3))$$

$$\odot R(S^2(s, 0), S^3(\otimes, I_1^3, I_3^3))$$

$$\oplus R(I_1^1, S^2(s, I_3^3))$$

$$\otimes R(0, S^3(\oplus, I_3^3, I_1^3))$$

$$N \doteq 2. \quad f(x_1, x_2, x_3) = \lfloor x_2 / 2 \rfloor$$

$$x_4 = \lfloor x_2 / 2 \rfloor$$

$$x_4 \leq x_2 / 2 < x_4 + 1$$

$$2x_4 \leq x_2 < 2(x_4 + 1)$$

$$\mu_{x_4}((x_2 + 1) \leq 2(x_4 + 1)) = \mu_{x_4}((x_2 + 1) \div 2(x_4 + 1))^* = 0.$$

$$M(S^3(\odot, S^2(s, I_2^4), S^3(\otimes, S^2(s, S^2(s, 0)), S^2(s, I_4^4))))$$

$$\text{ex. 1.}$$

$N \equiv 3. f(x, y) = x + 3y + 1$

	0	1	2	3	4	5
x	0	1	2	3	4	5
y	0	0	0	0	0	0

$x+3y$ $x+3y$ $x+3y$ $x+3y$ $x+3y$ $x+3y$

1) $f(1, 3, 7)$

2) $S(2)$

3) $S(2)$

4) $S(2)$

5) $S(3)$

6) $f(0, 0, 1)$

7) $f(0, 4, 11)$

8) $S(2)$

9) $S(4)$

10) $f(0, 0, 7)$

11) $S(2)$

12) $T(4, 0)$

1) $f(1, 2, 7)$

2) $S(0)$

3) $S(0)$

4) $S(0)$

5) $S(2)$

6) $f(0, 0, 1)$

7) $S(0)$

cr. 2

$$N = 4. f(x, y) = sg(x+y)$$

$$a_0 q_0 \lambda \rightarrow q_0 \lambda R$$

$$a_1 = 3C^4(0, 0, 0, 0) + 2 = 2$$

$$a_2 q_0 \# \rightarrow q_3 \lambda R$$

$$a_2 = 3C^4(0, 2, 3, 0) + 2 = 3C^3(3, 3, 0) + 2 =$$

$$a_3 q_0 l \rightarrow q_4 l R$$

$$= 3C^2(24, 0) + 2 = 3\left(\frac{24 \cdot 25}{2} + 24\right) + 2 =$$

$$a_4 q_1 l \rightarrow q_2 l R$$

$$= 3 \cdot 324 + 2 = 974$$

$$a_5 q_1 \# \rightarrow q_2 l R$$

$$a_6 q_1 \lambda \rightarrow q_2 l R$$

$$a_7 q_2 l \rightarrow q_2 \lambda R$$

$$a_8 q_2 \lambda \rightarrow q^* \lambda$$

$$a_9 q_2 \# \rightarrow q_2 \lambda R$$

$$a_{10} q_3 \lambda \rightarrow q^* \lambda$$

$$a_{11} q^* l \rightarrow q_1 l R$$

$$Q = \{q_0, q_1, q_2, q_3, q^*\}$$

$$\Gamma = \{\lambda, l, \#\}$$

$$C(x, y) = \left\lfloor \frac{(x+y)(x+y+1)}{2} \right\rfloor + x$$

$$g(N) = 2^{a_1} + 2^{a_1+a_2+1} + \dots + 2^{a_1+a_2+\dots+a_{11}+10} - 1$$

ex. 3