Ляховецкий ЭВ. ПИ-21

① $P_{81} = 81+1 = 82 = 64+16+2 = 2^7+2^4+2^6$

$a_1 = 1$
$a_2 = 4-1-1 = 2$
$a_3 = 6-4-1 = 1$

1) S(0)
2) T(0,0)
3) S(0)

② $f(x_1, x_2, x_3) = [\sqrt{x_3}]$

$x_4 = [\sqrt{x_3}]$

$x_4 \le \sqrt{x_3} < x_4 + 1$

$x_4^2 \le x_3 < (x_4+1)^2$

$x_3 + 1 \le x_4^2 + 2x_4 + 1$

$\mu_{x_4}((x_3+1) \le (x_4^2 + 2x_4 + 1)) = \mu_{x_4}((x+1) \dot{-} (x_4 \cdot x_4 + x_4 + x_4 + 1) = 0)$

$M(S^3(\ominus, S^2(s, I_3^4), S^2(s, S^3(\oplus, I_4^4, S^3(\oplus, I_4^4, S^3(\otimes, I_4^4, I_4^4))))))$

⊖ ОТ: $R(I_1^1, S^2(R(S^2(0, I_1^3), I_1^3))$ $f(x_1, x_2) = x_1 \dot{-} x_2$.

⊗ ОТ: $R(I_1^1, S^3(\oplus, I_1^5, I_5^5))$ $f(x_1 x_2 x_3 x_4)$ $h(x_1 x_2 x_3 x_4 x_5)$

$f(x_1 x_2 x_3 x_4) = x_1 \cdot x_2$.

⊕ ОТ: $R(I_1^5, S^2(s, I_5^5))$ $f(x_1 x_2 x_3 x_4) \overset{x_5}{=} f(x_1 x_2 x_3 x_4)$

$= x_2 + x_2$ $h(x_1 x_2 x_3 x_4 x_5)$

$f(x_1 x_2 x_3 x_4) = x_1 + x_2$.

③ $f(x, y, z) = 2z - y$

0	1	2	3	4
x	y	z		

1) T(2,0)
2) J(3,2,6)
3) S(3)
4) S(0)
5) J(0,0,1)
6) J(0,1,10)
7) S(1)
8) S(4)
9) J(0,0,1)
10) T(4,0)

(11) $f(x) = nsg(\lfloor x/3 \rfloor)$

59 $q_0 1 \to q_1 1R$

1130 $q_1 1 \to q_2 1R$

a_3 $q_2 1 \to q_3 1R$

a_4 $q_3 1 \to q_3 1R$

a_5 $q_3 \lambda \to q_4 \lambda L$

a_6 $q_4 1 \to q \lambda L$

a_7 $q_4 \lambda \to q^* \lambda$

a_8 $q_0 \lambda \to q^* 1$

a_9 $q_1 1 \to q^*$

a_{10} $q_2 \lambda \to q_5 \lambda L$

a_{11} $q_5 1 \to q_5 \lambda L$

a_{12} $q_5 \lambda \to q^* 1$

$3C^4(0,1,1,1) + 2 = 3 \cdot C(4,1) + 2 =$
$= 3 \cdot 19 + 2 = 57 + 2 = 59$

$3C^4(1,1,2,1) + 2 = 3 \cdot C(25,1) + 2 =$
$= 3 \cdot 376 + 2 = 1130$

$Q = \{q_0, q_1, q_2, q_3, q_4, q_5, q_6\}$ (q_0 ... q_6), $\Gamma = \{\lambda, 1\}$ (λ, 1)

(q^*)

$f(M) = 2^{59} + 2^{1130} + 2^{a_3} + 2^{a_4} + 2^{a_5} + 2^{a_6} + 2^{a_7} + 2^{a_8} + 2^{a_9} + 2^{a_{10}} + 2^{a_{11}} + 2^{a_{12}}$