

t23_fsm_1

(TMXdp2SG72u12qvZc8nvba8pXtVjiM2zSVa)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r6_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow \\
 & (\forall X2.((\neg v2_struct_0 X2) \wedge (l2_fsm_1 X2 X0 X1)) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (u1_struct_0 X2)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
 & (u1_struct_0 X2)) \Rightarrow (\forall X5.(v7_ordinal1 X5) \Rightarrow ((r6_fsm_1 X0 \\
 & X1 X2 X3 X4 X5) \Leftrightarrow (\forall X6.(m2_finseq_1 X6 X0) \Rightarrow ((r1_xxreal_0 (\\
 & k3_finseq_1 X6) X5) \Rightarrow (k4_fsm_1 X0 X1 X2 X3 X6 = k4_fsm_1 X0 X1 X2 X4 X6)))))))))) \\
 & \tag{1}
 \end{aligned}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow \\
 & (\forall X2.((\neg v2_struct_0 X2) \wedge (l2_fsm_1 X2 X0 X1)) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (u1_struct_0 X2)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
 & (u1_struct_0 X2)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 X2)) \Rightarrow \\
 & (\forall X6.(v7_ordinal1 X6) \Rightarrow (((r6_fsm_1 X0 X1 X2 X3 X4 X6) \wedge (r6_fsm_1 \\
 & X0 X1 X2 X4 X5 X6)) \Rightarrow (r6_fsm_1 X0 X1 X2 X3 X5 X6))))))))))
 \end{aligned}$$