

t17_fsm_3

(TMaA8SSJjGQNm7G2MrMM2tUMQgJZDGGMi4oW)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_fsm_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_fsm_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_fsm_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
 & \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (l2_fsm_3 \\
 & \quad X2 X0 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & \quad X2)))) \Rightarrow (k5_fsm_3 X0 X1 X2 X3 = ReplSep (toset (\lambda X4 : \iota. m1_subset_1 \\
 & \quad X4 (k8_afinsq_1 X0))) (\lambda X4 : \iota. \neg r1_xboole_0 (k3_rewrite3 \\
 & \quad X0 X1 X2 X4 X3) (u2_fsm_3 X0 X1 X2)) (\lambda X4 : \iota. X4))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k8_afinsq_1 \\
 & \quad X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow \\
 & \quad (\forall X3. ((\neg v2_struct_0 X3) \wedge (l2_fsm_3 X3 X0 X2)) \Rightarrow (\forall X4. \\
 & \quad (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X3)))) \Rightarrow ((X1 \in k5_fsm_3 \\
 & \quad X0 X2 X3 X4) \Leftrightarrow (\neg r1_xboole_0 (k3_rewrite3 X0 X2 X3 X1 X4) (u2_fsm_3 \\
 & \quad X0 X2 X3))))))
 \end{aligned}$$