

t38_fsm_1

(TMKGi7gzYqHoYHk9LjCheDaVdFtCzM5QFQK)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $l2_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_fsm_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(\neg v1_xboole_0 \\ X1) \Rightarrow (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ X3) \wedge (l2_fsm_1 X3 X1 X2)) \Rightarrow ((k7_fsm_1 X1 X2 X3 X0 = k7_fsm_1 X1 X2 X3 \\ (k2_nat_1 X0 np_1)) \Rightarrow (v4_fsm_1 (k7_fsm_1 X1 X2 X3 X0) X1 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(\neg v1_xboole_0 \\ X1) \Rightarrow (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ X3) \wedge ((v8_struct_0 X3) \wedge (l2_fsm_1 X3 X1 X2))) \Rightarrow ((k2_nat_1 X0 np_1 = \\ k5_card_1 (u1_struct_0 X3)) \Rightarrow (k7_fsm_1 X1 X2 X3 (k2_nat_1 X0 np_1) = \\ k7_fsm_1 X1 X2 X3 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (3)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (4)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (v3_membered X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(\neg v1_xboole_0 \\ & X1) \Rightarrow (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ & X3) \wedge ((v8_struct_0 X3) \wedge (l2_fsm_1 X3 X1 X2)))) \Rightarrow (\neg(k2_nat_1 X0 np_1 = \\ & k5_card_1 (u1_struct_0 X3)) \wedge (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\ & (\neg(r1_xxreal_0 X4 X0) \wedge (v4_fsm_1 (k7_fsm_1 X1 X2 X3 X4) X1 X2 X3))))))))) \end{aligned}$$