

t5_osalg_1

(TMbpuunp6hAsE7jyYD6tR3BRu9Z5ZWzKpt8)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v1_orders_3 : \iota \Rightarrow o$ be given. Let $k1_osalg_1 : \iota \Rightarrow \iota$ be given. Let $v6_osalg_1 : \iota \Rightarrow o$ be given. Let $l1_osalg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $l3_osalg_1 : \iota \Rightarrow o$ be given. Let $l2_osalg_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_osalg_1 : \iota \Rightarrow o$ be given. Let $v4_osalg_1 : \iota \Rightarrow o$ be given. Let $u1_osalg_1 : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $u1_msualg_1 : \iota \Rightarrow \iota$ be given. Let $u2_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_osalg_1 \\ X0))) \Rightarrow ((v6_osalg_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u4_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u4_struct_0 X0)) \Rightarrow ((r1_osalg_1 \\ X0 X1 X2) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 X2 \\ (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1)))) \Rightarrow ((r2_relset_1 X0 X1 X2 X3) \Leftrightarrow (X2 = X3)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. k6_partfun1 X0 = k4_relat_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 \\ (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (4)$$

Assume the following.

$$\forall X0.(l3_osalg_1 X0) \Rightarrow ((l1_osalg_1 X0) \wedge (l2_osalg_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l2_osalg_1 X0) \Rightarrow ((l1_msualg_1 X0) \wedge (l1_orders_2 X0)) \quad (6)$$

Assume the following.

$$\forall X0.v1_relat_1 (k4_relat_1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\ X0))) \Rightarrow ((\neg v2_struct_0 (k1_osalg_1 X0)) \wedge ((\neg v11_struct_0 (k1_osalg_1 \\ X0)) \wedge ((v3_osalg_1 (k1_osalg_1 X0)) \wedge ((v4_osalg_1 (k1_osalg_1 \\ X0)) \wedge (l3_osalg_1 (k1_osalg_1 X0))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\ X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((\neg v11_struct_0 X1) \wedge (\\ (v3_osalg_1 X1) \wedge ((v4_osalg_1 X1) \wedge (l3_osalg_1 X1)))))) \Rightarrow ((X1 = \\ k1_osalg_1 X0) \Leftrightarrow ((u1_struct_0 X0 = u1_struct_0 X1) \wedge ((k6_partfun1 \\ (u1_struct_0 X0) = u1_orders_2 X1) \wedge ((u4_struct_0 X0 = u4_struct_0 \\ X1) \wedge ((k6_partfun1 (u4_struct_0 X0) = u1_osalg_1 X1) \wedge ((r1_funct_2 \\ (u4_struct_0 X0) (k3_finseq_2 (u1_struct_0 X0)) (u4_struct_0 \\ X1) (k3_finseq_2 (u1_struct_0 X1)) (u1_msualg_1 X0) (u1_msualg_1 \\ X1)) \wedge (r1_funct_2 (u4_struct_0 X0) (u1_struct_0 X0) (u4_struct_0 \\ X1) (u1_struct_0 X1) (u2_msualg_1 X0) (u2_msualg_1 X1)))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_osalg_1 \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u4_struct_0 X0)) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 (u4_struct_0 X0)) \Rightarrow ((r1_osalg_1 X0 X1 X2) \Leftrightarrow (k4_tarSKI \\ X1 X2 \in u1_osalg_1 X0)))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_3 X0) \Leftrightarrow (r2_relset_1 \\ (u1_struct_0 X0) (u1_struct_0 X0) (u1_orders_2 X0) (k6_partfun1 \\ (u1_struct_0 X0)))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((X1 = k4_relat_1 X0) \Leftrightarrow (\\ \forall X2.\forall X3.(k4_tarSKI X2 X3 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (X2 = X3)))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\ X0))) \Rightarrow ((v1_orders_3 (k1_osalg_1 X0)) \wedge (v6_osalg_1 (k1_osalg_1 \\ X0))) \end{aligned}$$