

t12_yellow_7

(TMLmkX1P5Yj7CnKmGg1ts95eeLNpXkPbM2q)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $r1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_lattice3 : \iota \Rightarrow \iota$ be given. Let $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ (k7_lattice3 X0))) \Rightarrow (\forall X2.((r1_lattice3 (k7_lattice3 X0) \\ X2 X1) \Rightarrow (r2_lattice3 X0 X2 (k9_lattice3 X0 X1))) \wedge (((r2_lattice3 \\ X0 X2 (k9_lattice3 X0 X1)) \Rightarrow (r1_lattice3 (k7_lattice3 X0) X2 X1)) \wedge \\ (((r2_lattice3 (k7_lattice3 X0) X2 X1) \Rightarrow (r1_lattice3 X0 X2 (k9_lattice3 \\ X0 X1))) \wedge ((r1_lattice3 X0 X2 (k9_lattice3 X0 X1)) \Rightarrow (r2_lattice3 \\ (k7_lattice3 X0) X2 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k7_lattice3 X0))) \Rightarrow \\ (((r1_orders_2 X0 X1 (k9_lattice3 X0 X2)) \Rightarrow (r1_orders_2 (k7_lattice3 \\ X0) X2 (k8_lattice3 X0 X1))) \wedge (((r1_orders_2 (k7_lattice3 X0) X2 \\ (k8_lattice3 X0 X1)) \Rightarrow (r1_orders_2 X0 X1 (k9_lattice3 X0 X2))) \wedge \\ (((r1_orders_2 X0 (k9_lattice3 X0 X2) X1) \Rightarrow (r1_orders_2 (k7_lattice3 \\ X0) (k8_lattice3 X0 X1) X2)) \wedge ((r1_orders_2 (k7_lattice3 X0) (k8_lattice3 \\ X0 X1) X2) \Rightarrow (r1_orders_2 X0 (k9_lattice3 X0 X2) X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(r1_yellow_0 X0 X1) \Leftrightarrow (r2_yellow_0 (k7_lattice3 X0) X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(k3_relset_1 X0 X1 X2 = k2_relat_1 X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\Rightarrow(\forall X2.\forall X3.(g1_orders_2 X0 X1 = g1_orders_2 X2 X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((l1_orders_2 X0)\wedge(m1_subset_1 X1 (u1_struct_0 (k7_lattice3 X0))))\Rightarrow(m1_subset_1 (k9_lattice3 X0 X1) (u1_struct_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow((v1_orders_2 (k7_lattice3 X0))\wedge (l1_orders_2 (k7_lattice3 X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(m1_subset_1 (k3_relset_1 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X1 X0))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(l1_orders_2 X0)\Rightarrow(m1_subset_1 (k2_yellow_0 X0 X1) (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow((r1_yellow_0 X0 X1)\Rightarrow((X2 = k1_yellow_0 X0 X1)\Leftrightarrow((r2_lattice3 X0 X1 X2)\wedge(\forall X3.(m1_subset_1 X3 (u1_struct_0 X0))\Rightarrow((r2_lattice3 X0 X1 X3)\Rightarrow(r1_orders_2 X0 X2 X3))))))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 (k7_lattice3 X0)))\Rightarrow(k9_lattice3 X0 X1 = X1)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k8_lattice3 X0 X1 = X1)) \quad (13)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (k7_lattice3 X0 = g1_orders_2 (u1_struct_0 X0) (k3_reset_1 (u1_struct_0 X0) (u1_struct_0 X0) (u1_orders_2 X0))) \quad (14)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r2_yellow_0 X0 X1) \Rightarrow ((X2 = k2_yellow_0 X0 X1) \Leftrightarrow ((r1_lattice3 X0 X1 X2) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 X0 X1 X3) \Rightarrow (r1_orders_2 X0 X3 X2))))))) \quad (15)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 X0) \Rightarrow (X0 = g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0))) \quad (16)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. ((r1_yellow_0 X0 X1) \vee (r2_yellow_0 (k7_lattice3 X0) X1)) \Rightarrow (k1_yellow_0 X0 X1 = k2_yellow_0 (k7_lattice3 X0) X1))$$