

t66_yellow_5

(TMSyyGoP5QDexzRU23urTRRyx87fTRB9Lt3)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_waybel_1 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_waybel_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_yellow_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v3_yellow_0 : \iota \Rightarrow o$ be given. Let $v2_waybel_1 : \iota \Rightarrow o$ be given. Let $v10_waybel_1 : \iota \Rightarrow o$ be given. Let $v9_waybel_1 : \iota \Rightarrow o$ be given. Let $k12_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_yellow_0 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (((v2_waybel_1 X0) \wedge (v10_waybel_1 X0)) \Rightarrow \\ & ((v9_waybel_1 X0) \wedge (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (k7_waybel_1 X0 (k7_waybel_1 X0 X1) = X1))) \wedge ((v9_waybel_1 X0) \wedge \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k7_waybel_1 X0 \\ & (k7_waybel_1 X0 X1) = X1))) \Rightarrow ((v2_waybel_1 X0) \wedge (v10_waybel_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v11_waybel_1 X0) \wedge (l1_orders_2 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k7_waybel_1 X0 (k13_lattice3 \\ & X0 X1 X2) = k12_lattice3 X0 (k7_waybel_1 X0 X1) (k7_waybel_1 X0 X2)) \wedge \\ & (k7_waybel_1 X0 (k12_lattice3 X0 X1 X2) = k13_lattice3 X0 (k7_waybel_1 \\ & X0 X1) (k7_waybel_1 X0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((v5_orders_2 X0) \wedge ((v2_lattice3 \\ & X0) \wedge (l1_orders_2 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\\ & m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k12_lattice3 X0 X1 X2 = k11_lattice3 \\ & X0 X1 X2) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\wedge(m1_subset_1 X1 (u1_struct_0 X0)))\Rightarrow(m1_subset_1 (k7_waybel_1 X0 X1) (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k1_yellow_5 X0 X1 X2 = k11_lattice3 X0 X1 (k7_waybel_1 X0 X2)))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(((\neg v2_struct_0 X0)\wedge(v11_waybel_1 X0))\Rightarrow((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 X0)\wedge((v5_orders_2 X0)\wedge((v1_lattice3 X0)\wedge((v2_lattice3 X0)\wedge((v3_yellow_0 X0)\wedge((v2_waybel_1 X0)\wedge(v10_waybel_1 X0)))))))))) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v11_waybel_1 X0)\wedge(l1_orders_2 X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k7_waybel_1 X0 (k1_yellow_5 X0 X1 X2) = k13_lattice3 X0 (k7_waybel_1 X0 X1) X2)))$$