

t12_lattice7

(TMZbh9wBDxZTTCGSe93WzqdWuzJJZZMohbz)

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Let $v8_struct_0 : \iota \Rightarrow o$ 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 $v2_waybel_1 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ 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 $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_lattice7 : \iota \Rightarrow \iota$ be given. Let $r2_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0 : \iota \Rightarrow o. \forall X1. ((v8_struct_0 X1) \wedge ((v3_orders_2 \\ X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v1_lattice3 X1) \wedge \\ ((v2_lattice3 X1) \wedge (l1_orders_2 X1))))))) \Rightarrow ((\forall X2. (m1_subset_1 \\ X2 (u1_struct_0 X1)) \Rightarrow ((\forall X3. (m1_subset_1 X3 (u1_struct_0 \\ X1)) \Rightarrow ((r2_orders_2 X1 X3 X2) \Rightarrow (X0 X3))) \Rightarrow (X0 X2))) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (X0 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v8_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge ((v2_waybel_1 X0) \wedge ((v1_lattice3 X0) \wedge \\ ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow ((\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow ((r2_orders_2 X0 X2 X1) \Rightarrow (k1_yellow_0 X0 (k9_subset_1 (u1_struct_0 \\ X0) (k5_waybel_0 X0 X2) (k3_lattice7 X0)) = X2))) \Rightarrow (k1_yellow_0 \\ X0 (k9_subset_1 (u1_struct_0 X0) (k5_waybel_0 X0 X1) (k3_lattice7 \\ X0)) = X1))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0. ((v8_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge ((v2_waybel_1 X0) \wedge ((v1_lattice3 X0) \wedge \\ ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (k1_yellow_0 X0 (k9_subset_1 (u1_struct_0 \\ X0) (k5_waybel_0 X0 X1) (k3_lattice7 X0)) = X1)) \end{aligned}$$