

t21_yellow_0

(TMUgcM4Diua2v8ZNCnBXDudzAG8JHiMDceK)

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Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v5_orders_2 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
 & (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
 & (((X3 = k11_lattice3 X0 X1 X2) \wedge (r2_yellow_0 X0 (k2_tarski X1 X2))) \Rightarrow \\
 & ((r1_orders_2 X0 X3 X1) \wedge ((r1_orders_2 X0 X3 X2) \wedge (\forall X4.(m1_subset_1 \\
 & X4 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 X0 X4 X1) \wedge (r1_orders_2 X0 \\
 & X4 X2)) \Rightarrow (r1_orders_2 X0 X4 X3)))))) \wedge ((r1_orders_2 X0 X3 X1) \wedge (\\
 & (r1_orders_2 X0 X3 X2) \wedge (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
 & X0)) \Rightarrow ((r1_orders_2 X0 X4 X1) \wedge (r1_orders_2 X0 X4 X2)) \Rightarrow (r1_orders_2 \\
 & X0 X4 X3)))))) \Rightarrow ((X3 = k11_lattice3 X0 X1 X2) \wedge (r2_yellow_0 X0 (k2_tarski \\
 & X1 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. ((l1_orders_2 X0) \wedge ((m1_subset_1 \\
 & X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \\
 & (k11_lattice3 X0 X1 X2) (u1_struct_0 X0))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(l1_orders_2 X0) \Rightarrow ((v2_lattice3 X0) \Leftrightarrow (\forall X1.(\\
 & m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
 & (u1_struct_0 X0)) \Rightarrow (\exists X3.(m1_subset_1 X3 (u1_struct_0 X0)) \wedge \\
 & ((r1_orders_2 X0 X3 X1) \wedge ((r1_orders_2 X0 X3 X2) \wedge (\forall X4.(m1_subset_1 \\
 & X4 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 X0 X4 X1) \wedge (r1_orders_2 X0 \\
 & X4 X2)) \Rightarrow (r1_orders_2 X0 X4 X3))))))))))
 \end{aligned} \tag{3}$$

Theorem 1

$$\forall X0.((v5_orders_2 X0) \wedge (l1_orders_2 X0)) \Rightarrow ((v2_lattice3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (r2_yellow_0 X0 (k2_tarski X1 X2)))))$$