

t47_yellow_0 (TMX-
iMCD6k577EvJQRvSeLJTWrPZCeMGMr4o)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ \forall X2.((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((\\ r2_lattice3 X0 X1 X3) \Leftrightarrow (r2_lattice3 X0 X2 X3))) \wedge (r1_yellow_0 X0 \\ X1)) \Rightarrow (r1_yellow_0 X0 X2)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1. \forall X2.(m1_subset_1 \\ X2 (u1_struct_0 X0)) \Rightarrow ((r1_yellow_0 X0 X1) \Rightarrow ((X2 = k1_yellow_0 X0 \\ X1) \Leftrightarrow ((r2_lattice3 X0 X1 X2) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ X0)) \Rightarrow ((r2_lattice3 X0 X1 X3) \Rightarrow (r1_orders_2 X0 X2 X3))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(r1_yellow_0 X0 X1) \Leftrightarrow \\ (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge ((r2_lattice3 \\ X0 X1 X2) \wedge ((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r2_lattice3 \\ X0 X1 X3) \Rightarrow (r1_orders_2 X0 X2 X3))) \wedge (\forall X3.(m1_subset_1 X3 \\ (u1_struct_0 X0)) \Rightarrow (((r2_lattice3 X0 X1 X3) \wedge (\forall X4.(m1_subset_1 \\ X4 (u1_struct_0 X0)) \Rightarrow ((r2_lattice3 X0 X1 X4) \Rightarrow (r1_orders_2 X0 X3 \\ X4)))) \Rightarrow (X3 = X2))))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ \forall X2.((r1_yellow_0 X0 X1) \wedge (\forall X3.(m1_subset_1 X3 (\\ u1_struct_0 X0)) \Rightarrow ((r2_lattice3 X0 X1 X3) \Leftrightarrow (r2_lattice3 X0 X2 X3)))) \Rightarrow \\ (k1_yellow_0 X0 X1 = k1_yellow_0 X0 X2)) \end{aligned}$$