

t35_yellow_0 (TMSN- MEA8HKKEKgCDQx5xdar5PwkGBi4Y2wn)

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Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.(r1_tarski \\ & X1 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 \\ & X0 X2 X3) \Rightarrow (r1_lattice3 X0 X1 X3)) \wedge ((r2_lattice3 X0 X2 X3) \Rightarrow (r2_lattice3 \\ & X0 X1 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(l1_orders_2 X0) \Rightarrow (m1_subset_1 (k2_yellow_0 X0 X1) (u1_struct_0 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow ((r2_yellow_0 X0 X1) \Rightarrow ((X2 = k2_yellow_0 X0 \\ & X1) \Leftrightarrow ((r1_lattice3 X0 X1 X2) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow ((r1_lattice3 X0 X1 X3) \Rightarrow (r1_orders_2 X0 X3 X2)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.((r1_tarski \\ & X1 X2) \wedge ((r2_yellow_0 X0 X1) \wedge (r2_yellow_0 X0 X2))) \Rightarrow (r1_orders_2 \\ & X0 (k2_yellow_0 X0 X2) (k2_yellow_0 X0 X1))) \end{aligned}$$