

t6_yellow_7

(TMPazXanJBU3AnotytA7QnbnbYHLaJdvsWo)

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Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $k7_lattice3 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 \\ & X0 X1 X2) \Leftrightarrow (r1_orders_2 (k7_lattice3 X0) (k8_lattice3 X0 X2) (k8_lattice3 \\ & X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & (k7_lattice3 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & (k7_lattice3 X0))) \Rightarrow ((r1_orders_2 (k7_lattice3 X0) X1 X2) \Leftrightarrow (r1_orders_2 \\ & X0 (k9_lattice3 X0 X2) (k9_lattice3 X0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_orders_2 X0) \wedge (m1_subset_1 X1 (u1_struct_0 \\ & (k7_lattice3 X0)))) \Rightarrow (m1_subset_1 (k9_lattice3 X0 X1) (u1_struct_0 \\ & X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_orders_2 X0) \wedge (m1_subset_1 X1 (u1_struct_0 \\ & X0))) \Rightarrow (m1_subset_1 (k8_lattice3 X0 X1) (u1_struct_0 (k7_lattice3 \\ & X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 (k7_lattice3 X0)) \wedge \\ & (l1_orders_2 (k7_lattice3 X0))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0) \Rightarrow ((v4_orders_2 X0) \Leftrightarrow (\forall X1.(\\
& \quad m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
& \quad ((r1_orders_2 X0 X1 X2) \wedge (r1_orders_2 X0 X2 X3)) \Rightarrow (r1_orders_2 \\
& \quad \quad X0 X1 X3)))))) \tag{6}
\end{aligned}$$

Theorem 1

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v4_orders_2 X0) \Leftrightarrow (v4_orders_2 (k7_lattice3 X0)))$$