

t15_yellow_3 (TMZD-
cWZm4DGhAZ7sthprs5gPjoZpTdEd9Kv)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $k3_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow (\forall X5. \\ & (m1_subset_1 X5 (u1_struct_0 X1)) \Rightarrow (((r1_orders_2 X0 X2 X3) \wedge (r1_orders_2 \\ & X1 X4 X5)) \Leftrightarrow (r1_orders_2 (k3_yellow_3 X0 X1) (k7_yellow_3 X0 X1 X2 \\ & X4) (k7_yellow_3 X0 X1 X3 X5)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1))) \Rightarrow ((\neg v2_struct_0 (k3_yellow_3 \\ & X0 X1)) \wedge (v1_orders_2 (k3_yellow_3 X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \exists X1. m1_subset_1 X1 X0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ & X0) \wedge (l1_orders_2 X0)) \wedge (((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \wedge \\ & ((m1_subset_1 X2 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (u1_struct_0 \\ & X1)))))) \Rightarrow (m1_subset_1 (k7_yellow_3 X0 X1 X2 X3) (u1_struct_0 (k3_yellow_3 \\ & X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_orders_2 X0) \wedge (l1_orders_2 X1)) \Rightarrow (\\ & (v1_orders_2 (k3_yellow_3 X0 X1)) \wedge (l1_orders_2 (k3_yellow_3 \\ & X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow ((v3_orders_2 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (r1_orders_2 X0 X1 X1))) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow ((v3_orders_2 (k3_yellow_3 X0 X1)) \Rightarrow ((v3_orders_2 X0) \wedge (v3_orders_2 X1))))$$