

t22_yellow10 (TMXAQGdCuh- GAhsVc2Zq93LNfjnLKTvbcKi6)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_waybel_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v5_orders_2 \\ & \quad X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1. ((\\ & \neg v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v24_waybel_0 \\ & \quad X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ & \quad (k3_yellow_3 X0 X1))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 \\ & \quad (k3_yellow_3 X0 X1))) \Rightarrow ((r1_waybel_3 (k3_yellow_3 X0 X1) X2 X3) \Rightarrow \\ & \quad ((r1_waybel_3 X0 (k8_yellow_3 X0 X1 X2) (k8_yellow_3 X0 X1 X3)) \wedge \\ & \quad (r1_waybel_3 X1 (k9_yellow_3 X0 X1 X2) (k9_yellow_3 X0 X1 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v3_orders_2 X0) \wedge (l1_orders_2 X0)) \wedge \\ & ((v3_orders_2 X1) \wedge (l1_orders_2 X1))) \Rightarrow ((v1_orders_2 (k3_yellow_3 \\ & \quad X0 X1)) \wedge (v3_orders_2 (k3_yellow_3 X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1))) \Rightarrow ((\neg v2_struct_0 (k3_yellow_3 \\ & \quad X0 X1)) \wedge (v1_orders_2 (k3_yellow_3 X0 X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (l1_orders_2 \\ & \quad X0)) \wedge (((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \wedge (m1_subset_1 X2 \\ & \quad (u1_struct_0 (k3_yellow_3 X0 X1)))))) \Rightarrow (m1_subset_1 (k9_yellow_3 \\ & \quad X0 X1 X2) (u1_struct_0 X1)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\wedge(((\neg v2_struct_0 X1)\wedge(l1_orders_2 X1))\wedge(m1_subset_1 X2 (u1_struct_0 (k3_yellow_3 X0 X1))))))\Rightarrow(m1_subset_1 (k8_yellow_3 X0 X1 X2) (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((l1_orders_2 X0)\wedge(l1_orders_2 X1))\Rightarrow((v1_orders_2 (k3_yellow_3 X0 X1))\wedge(l1_orders_2 (k3_yellow_3 X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge(l1_orders_2 X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow((v1_waybel_3 X1 X0)\Leftrightarrow(r1_waybel_3 X0 X1 X1))) \quad (7)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v5_orders_2 X0)\wedge((v24_waybel_0 X0)\wedge(l1_orders_2 X0))))))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 X1)\wedge((v24_waybel_0 X1)\wedge(l1_orders_2 X1))))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 (k3_yellow_3 X0 X1)))\Rightarrow((v1_waybel_3 X2 (k3_yellow_3 X0 X1))\Rightarrow((v1_waybel_3 (k8_yellow_3 X0 X1 X2) X0)\wedge(v1_waybel_3 (k9_yellow_3 X0 X1 X2) X1))))))$$