

t18_waybel31

(TMRM7arW9trgZBJK3j38pUkMRv5TgMSonZH)

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Let $v2_struct.0 : \iota \Rightarrow o$ be given. Let $v3_orders.2 : \iota \Rightarrow o$ be given. Let $v4_orders.2 : \iota \Rightarrow o$ be given. Let $v5_orders.2 : \iota \Rightarrow o$ be given. Let $v3_lattice3 : \iota \Rightarrow o$ 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 $v1_waybel.3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_yellow.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_waybel.3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_waybel.3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_yellow.0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct.0 X0) \wedge ((v3_orders.2 X0) \wedge (l1_orders.2 \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset.1 X1 (u1_struct.0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset.1 X2 (u1_struct.0 X0)) \Rightarrow ((X1 \in k2_waybel.3 X0 X2) \Leftrightarrow (r1_waybel.3 \\ & \quad X0 X2 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v5_orders.2 X0) \wedge (l1_orders.2 X0)) \Rightarrow (\forall X1. \\ & (m1_subset.1 X1 (u1_struct.0 X0)) \Rightarrow (\forall X2.(((X1 = k2_yellow.0 \\ & \quad X0 X2) \wedge (r2_yellow.0 X0 X2)) \Rightarrow ((r1_lattice3 X0 X2 X1) \wedge (\forall X3. \\ & (m1_subset.1 X3 (u1_struct.0 X0)) \Rightarrow ((r1_lattice3 X0 X2 X3) \Rightarrow (r1_orders.2 \\ & \quad X0 X3 X1)))))) \wedge (((r1_lattice3 X0 X2 X1) \wedge (\forall X3.(m1_subset.1 \\ & \quad X3 (u1_struct.0 X0)) \Rightarrow ((r1_lattice3 X0 X2 X3) \Rightarrow (r1_orders.2 X0 X3 \\ & \quad X1)))) \Rightarrow ((X1 = k2_yellow.0 X0 X2) \wedge (r2_yellow.0 X0 X2)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct.0 X0) \wedge ((v3_orders.2 X0) \wedge ((v5_orders.2 \\ & \quad X0) \wedge (l1_orders.2 X0)))) \Rightarrow (\forall X1.(m1_subset.1 X1 (u1_struct.0 \\ & \quad X0)) \Rightarrow (r1_lattice3 X0 (k2_waybel.3 X0 X1) X1)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders.2 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset.1 \\ & \quad X2 (u1_struct.0 X0)) \Rightarrow ((r1_lattice3 X0 X1 X2) \Leftrightarrow (\forall X3.(m1_subset.1 \\ & \quad X3 (u1_struct.0 X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1_orders.2 X0 X2 X3)))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((v1_waybel_3 \\ X1 X0) \Leftrightarrow (r1_waybel_3 X0 X1 X1))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge ((v3_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((v1_waybel_3 \\ X1 X0) \Rightarrow (X1 = k2_yellow_0 X0 (k2_waybel_3 X0 X1)))) \end{aligned}$$