

t62_yellow_0

(TMUs1m7MXchZcm2GzkMzMzMZiHmTy1pkF)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.(m1_yellow_0\ X1\ X0) \Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow (\forall X3.(m1_subset_1 \\ & \quad X3\ (u1_struct_0\ X0)) \Rightarrow (\forall X4.(m1_subset_1\ X4\ (u1_struct_0 \\ & \quad X1)) \Rightarrow (\forall X5.(m1_subset_1\ X5\ (u1_struct_0\ X1)) \Rightarrow (((X4 = X2) \wedge \\ & ((X5 = X3) \wedge (r1_orders_2\ X1\ X4\ X5)) \Rightarrow (r1_orders_2\ X0\ X2\ X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X2))) \Rightarrow (m1_subset_1\ X0\ X2) \quad (2)$$

Assume the following.

$$\forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.(m1_yellow_0\ X1\ X0) \Rightarrow (l1_orders_2\ X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & \quad X2\ (u1_struct_0\ X0)) \Rightarrow ((r2_lattice3\ X0\ X1\ X2) \Leftrightarrow (\forall X3.(m1_subset_1 \\ & \quad X3\ (u1_struct_0\ X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1_orders_2\ X0\ X3\ X2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & \quad X2\ (u1_struct_0\ X0)) \Rightarrow ((r1_lattice3\ X0\ X1\ X2) \Leftrightarrow (\forall X3.(m1_subset_1 \\ & \quad X3\ (u1_struct_0\ X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1_orders_2\ X0\ X2\ X3)))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 \ X0) \wedge (l1_orders_2 \ X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 \ X1) \wedge (m1_yellow_0 \ X1 \ X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & \quad X2 \ (k1_zfmisc_1 \ (u1_struct_0 \ X1))) \Rightarrow (\forall X3.(m1_subset_1 \\ & \quad X3 \ (u1_struct_0 \ X0)) \Rightarrow (\forall X4.(m1_subset_1 \ X4 \ (u1_struct_0 \\ & X1)) \Rightarrow ((X4 = X3) \Rightarrow (((r1_lattice3 \ X1 \ X2 \ X4) \Rightarrow (r1_lattice3 \ X0 \ X2 \ X3)) \wedge \\ & \quad ((r2_lattice3 \ X1 \ X2 \ X4) \Rightarrow (r2_lattice3 \ X0 \ X2 \ X3)))))) \end{aligned}$$