

t63_yellow_0

(TMdyA2tGXJEE6tPnCAoLYiwJ53qLP2UZ5Yg)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v4_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (m1_yellow_0 X1 X0)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (\forall X3. (m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 \\ & X1)) \Rightarrow ((X4 = X3) \Rightarrow (((r1_lattice3 X1 X2 X4) \Rightarrow (r1_lattice3 X0 X2 X3)) \wedge \\ & ((r2_lattice3 X1 X2 X4) \Rightarrow (r2_lattice3 X0 X2 X3)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge ((v4_yellow_0 X1 X0) \wedge (m1_yellow_0 X1 X0))) \Rightarrow \\ & (\forall X2. \forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow ((X4 = X3) \Rightarrow (((r1_lattice3 X0 \\ & X2 X3) \Rightarrow (r1_lattice3 X1 X2 X4)) \wedge ((r2_lattice3 X0 X2 X3) \Rightarrow (r2_lattice3 \\ & X1 X2 X4)))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.((v4_yellow_0 X1 X0) \wedge \\
& (m1_yellow_0 X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\
& (m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow (\forall X5.(m1_subset_1 X5 \\
& (u1_struct_0 X1)) \Rightarrow (((X4 = X2) \wedge ((X5 = X3) \wedge ((r1_orders_2 X0 X2 X3) \wedge \\
& (X4 \in u1_struct_0 X1)))) \Rightarrow (r1_orders_2 X1 X4 X5))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_yellow_0 X1 X0) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\
& X1)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 X1)) \Rightarrow (((X4 = X2) \wedge \\
& ((X5 = X3) \wedge (r1_orders_2 X1 X4 X5)) \Rightarrow (r1_orders_2 X0 X2 X3))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2_struct_0 X1) \wedge (m1_yellow_0 X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 X1)) \Rightarrow (m1_subset_1 X2 (u1_struct_0 X0)))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v4_orders_2 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
& (((r1_orders_2 X0 X1 X2) \wedge (r1_orders_2 X0 X2 X3)) \Rightarrow (r1_orders_2 \\
& X0 X1 X3))))
\end{aligned} \tag{7}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{8}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \tag{9}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_yellow_0 X1 X0) \Rightarrow (l1_orders_2 X1)) \tag{10}$$

Assume the following.

$$\forall X0. \forall X1. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (k2_yellow_0 X0 X1) (u1_struct_0 X0)) \tag{11}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.(r2_yellow_0\ X0\ X1) \Leftrightarrow \\
& (\exists X2.(m1_subset_1\ X2\ (u1_struct_0\ X0)) \wedge ((r1_lattice3 \\
& X0\ X1\ X2) \wedge ((\forall X3.(m1_subset_1\ X3\ (u1_struct_0\ X0)) \Rightarrow ((r1_lattice3 \\
& X0\ X1\ X3) \Rightarrow (r1_orders_2\ X0\ X3\ X2)))) \wedge (\forall X3.(m1_subset_1\ X3 \\
& (u1_struct_0\ X0)) \Rightarrow (((r1_lattice3\ X0\ X1\ X3) \wedge (\forall X4.(m1_subset_1 \\
& X4\ (u1_struct_0\ X0)) \Rightarrow ((r1_lattice3\ X0\ X1\ X4) \Rightarrow (r1_orders_2\ X0\ X4 \\
& X3)))) \Rightarrow (X3 = X2))))))
\end{aligned} \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\
& X2\ (u1_struct_0\ X0)) \Rightarrow ((r2_yellow_0\ X0\ X1) \Rightarrow ((X2 = k2_yellow_0\ X0 \\
& X1) \Leftrightarrow ((r1_lattice3\ X0\ X1\ X2) \wedge (\forall X3.(m1_subset_1\ X3\ (u1_struct_0 \\
& X0)) \Rightarrow ((r1_lattice3\ X0\ X1\ X3) \Rightarrow (r1_orders_2\ X0\ X3\ X2))))))
\end{aligned} \tag{13}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0\ X0) \wedge ((v4_orders_2\ X0) \wedge (l1_orders_2 \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge ((v4_yellow_0\ X1\ X0) \wedge (\\
& m1_yellow_0\ X1\ X0))) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\
& (u1_struct_0\ X1))) \Rightarrow (((r2_yellow_0\ X0\ X2) \wedge (k2_yellow_0\ X0\ X2 \in \\
& u1_struct_0\ X1)) \Rightarrow ((r2_yellow_0\ X1\ X2) \wedge (k2_yellow_0\ X1\ X2 = k2_yellow_0 \\
& X0\ X2))))))
\end{aligned}$$