

t36_yellow_3

(TMGjwXvorsjTT4WMtd71nVNgRMN6fyWzkub)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\ & X1)) \Rightarrow (((r1_lattice3 X0 X2 X4) \wedge (r1_lattice3 X1 X3 X5)) \Rightarrow (r1_lattice3 \\ & (k3_yellow_3 X0 X1) (k6_yellow_3 X0 X1 X2 X3) (k7_yellow_3 X0 X1 X4 \\ & X5))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X1)) \Rightarrow (\forall X5. \\ & (m1_subset_1 X5 (u1_struct_0 X1)) \Rightarrow (((r1_orders_2 X0 X2 X3) \wedge (r1_orders_2 \\ & X1 X4 X5)) \Leftrightarrow (r1_orders_2 (k3_yellow_3 X0 X1) (k7_yellow_3 X0 X1 X2 \\ & X4) (k7_yellow_3 X0 X1 X3 X5))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ & X0) \wedge (l1_orders_2 X0)) \wedge (((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \wedge \\ & ((m1_subset_1 X2 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (u1_struct_0 \\ & X1)))))) \Rightarrow (m1_subset_1 (k7_yellow_3 X0 X1 X2 X3) (u1_struct_0 (k3_yellow_3 \\ & X0 X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(r2_yellow_0 X0 X1) \Leftrightarrow \\
& (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge ((r1_lattice3 \\
& X0 X1 X2) \wedge ((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 \\
& X0 X1 X3) \Rightarrow (r1_orders_2 X0 X3 X2)))) \wedge (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 X0 X1 X3) \wedge (\forall X4.(m1_subset_1 \\
& X4 (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 X0 X1 X4) \Rightarrow (r1_orders_2 X0 X4 \\
& X3)))))) \Rightarrow (X3 = X2))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v5_orders_2 X1) \wedge (l1_orders_2 \\
& X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
& X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
& X1))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5. \\
& (m1_subset_1 X5 (u1_struct_0 X1)) \Rightarrow (((r2_yellow_0 X0 X2) \wedge ((r2_yellow_0 \\
& X1 X3) \wedge (\forall X6.(m1_subset_1 X6 (u1_struct_0 (k3_yellow_3 \\
& X0 X1))) \Rightarrow ((r1_lattice3 (k3_yellow_3 X0 X1) (k6_yellow_3 X0 X1 X2 \\
& X3) X6) \Rightarrow (r1_orders_2 (k3_yellow_3 X0 X1) X6 (k7_yellow_3 X0 X1 X4 \\
& X5)))))) \Rightarrow ((\forall X6.(m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow ((r1_lattice3 \\
& X0 X2 X6) \Rightarrow (r1_orders_2 X0 X6 X4))) \wedge (\forall X6.(m1_subset_1 X6 \\
& (u1_struct_0 X1)) \Rightarrow ((r1_lattice3 X1 X3 X6) \Rightarrow (r1_orders_2 X1 X6 X5))))))))))
\end{aligned}$$