

t21_yellow16
(TMZoNGCyRQzHtr9Sq3zfdF6Ac8z5PU8bS5y)

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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 $r3_yellow16 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v11_quantal1 : \iota \Rightarrow o$ be given. Let $v22_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $r1_yellow16 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_waybel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v25_waybel_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(l1_orders_2 X1) \Rightarrow ((\\ & (g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0) = g1_orders_2 (\\ & u1_struct_0 X1) (u1_orders_2 X1)) \wedge (v3_lattice3 X0)) \Rightarrow (v3_lattice3 \\ & X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_lattice3 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow (((v11_quantal1 \\ & X1) \wedge (v22_waybel_0 X1 X0 X0)) \Rightarrow ((v4_waybel_0 (k1_yellow_2 X0 X0 \\ & X1) X0) \wedge ((v3_orders_2 (k1_yellow_2 X0 X0 X1)) \wedge ((v4_orders_2 (\\ & k1_yellow_2 X0 X0 X1)) \wedge ((v5_orders_2 (k1_yellow_2 X0 X0 X1)) \wedge (\\ & (v1_lattice3 (k1_yellow_2 X0 X0 X1)) \wedge ((v2_lattice3 (k1_yellow_2 \\ & X0 X0 X1)) \wedge ((v3_lattice3 (k1_yellow_2 X0 X0 X1)) \wedge (l1_orders_2 \\ & (k1_yellow_2 X0 X0 X1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
& X0) \wedge ((v5_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 \\
& X1) \wedge ((v5_orders_2 X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& ((r1_yellow16 X1 X0 X2) \Rightarrow ((v22_waybel_0 X2 X0 X0) \wedge (v6_waybel_1 \\
& X2 X0))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
& X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\
& X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow ((r1_yellow16 \\
& X1 X0 X2) \Rightarrow (k1_yellow_2 X0 X0 X2 = g1_orders_2 (u1_struct_0 X1) (u1_orders_2 \\
& X1))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
& X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\
& X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge (v1_funct_1 \\
& X2)) \Rightarrow ((r1_yellow16 X0 X1 X2) \Rightarrow ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 \\
& (u1_struct_0 X1) (u1_struct_0 X1)) \wedge ((v11_quantal1 X2) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 X1))))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \tag{6}$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \Rightarrow ((v1_orders_2 (g1_orders_2 X0 X1)) \wedge (l1_orders_2 (g1_orders_2 X0 X1))) \tag{7}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\ v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\ X1) \wedge (l1_orders_2 X1)))))) \Rightarrow ((r3_yellow16 X0 X1) \Leftrightarrow (\exists X2.(\\ (v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X1) (u1_struct_0 \\ X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ X1) (u1_struct_0 X0)))))) \wedge (r1_yellow16 X0 X1 X2)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v3_lattice3 \\ X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v1_lattice3 X0) \wedge (v2_lattice3 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (10)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v3_orders_2 \\ X0) \wedge (v3_lattice3 X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge \\ ((v24_waybel_0 X0) \wedge (v25_waybel_0 X0)))))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 X0) \Rightarrow (X0 = g1_orders_2 \\ (u1_struct_0 X0) (u1_orders_2 X0))) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge ((v3_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ (\forall X1.((\neg v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 \\ X1) \wedge ((v5_orders_2 X1) \wedge (l1_orders_2 X1)))))) \Rightarrow ((r3_yellow16 X1 \\ X0) \Rightarrow (v3_lattice3 X1))) \end{aligned}$$