

t26_yellow_6 (TMVB- bVk56Em3tHKnDpCmH3g7NeuySVyx7j9)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m3_yellow_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_yellow_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k12_pralg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_yellow_1 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $k5_yellow_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_yellow_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_yellow_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \Rightarrow (\forall X2. \forall X3. (g1_orders_2 X0 X1 = g1_orders_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (1)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (l1_struct_0 X1) \Rightarrow (\forall X2. (m3_yellow_6 X2 X0 X1) \Rightarrow (((v1_relat_1 X2) \wedge ((v4_relat_1 X2 X0) \wedge ((v1_funct_1 X2) \wedge (v1_partfun1 X2 X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (\forall X1. (l1_waybel_0 X1 X0) \Rightarrow (l1_orders_2 X1)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_struct_0 \\ & X0))\wedge(((\neg v2_struct_0 X1)\wedge((v4_orders_2 X1)\wedge((v7_waybel_0 X1)\wedge \\ & (l1_waybel_0 X1 X0))))\wedge(m3_yellow_6 X2 (u1_struct_0 X1) X0)))\Rightarrow \\ & ((\neg v2_struct_0 (k8_yellow_6 X0 X1 X2))\wedge((v4_orders_2 (k8_yellow_6 \\ & X0 X1 X2))\wedge((v6_waybel_0 (k8_yellow_6 X0 X1 X2) X0)\wedge((v7_waybel_0 \\ & (k8_yellow_6 X0 X1 X2))\wedge(l1_waybel_0 (k8_yellow_6 X0 X1 X2) X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(\\ & (v1_funct_1 X1)\wedge((v1_partfun1 X1 X0)\wedge(v1_yellow_1 X1))))))\Rightarrow(\\ & (v1_orders_2 (k5_yellow_1 X0 X1))\wedge(l1_orders_2 (k5_yellow_1 \\ & X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_orders_2 X0)\wedge(l1_orders_2 X1))\Rightarrow(\\ & (v1_orders_2 (k3_yellow_3 X0 X1))\wedge(l1_orders_2 (k3_yellow_3 \\ & X0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0)))\Rightarrow((v1_orders_2 (g1_orders_2 X0 X1))\wedge(l1_orders_2 (g1_orders_2 \\ & X0 X1))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge(\\ & (v1_funct_1 X1)\wedge((v1_partfun1 X1 X0)\wedge(v1_yellow_1 X1))))))\Rightarrow(\\ & \forall X2.((v1_orders_2 X2)\wedge(l1_orders_2 X2))\Rightarrow((X2 = k5_yellow_1 \\ & X0 X1)\Leftrightarrow((u1_struct_0 X2 = k4_card_3 (k12_pralg_1 X0 X1))\wedge(\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X2))\Rightarrow(\forall X4.(m1_subset_1 X4 \\ & (u1_struct_0 X2))\Rightarrow((X3 \in k4_card_3 (k12_pralg_1 X0 X1))\Rightarrow((r1_orders_2 \\ & X2 X3 X4)\Leftrightarrow(\exists X5.((v1_relat_1 X5)\wedge(v1_funct_1 X5))\wedge(\exists X6. \\ & ((v1_relat_1 X6)\wedge(v1_funct_1 X6))\wedge((X5 = X3)\wedge((X6 = X4)\wedge(\forall X7. \\ & \neg(X7 \in X0)\wedge(\forall X8.(l1_orders_2 X8))\Rightarrow(\forall X9.(m1_subset_1 \\ & X9 (u1_struct_0 X8))\Rightarrow(\forall X10.(m1_subset_1 X10 (u1_struct_0 \\ & X8))\Rightarrow(\neg(X8 = k1_funct_1 X1 X7)\wedge((X9 = k1_funct_1 X5 X7)\wedge((X10 = k1_funct_1 \\ & X6 X7)\wedge(r1_orders_2 X8 X9 X10)))))))))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(l1_orders_2 X1) \Rightarrow (\forall X2. \\
& ((v1_orders_2 X2) \wedge (l1_orders_2 X2)) \Rightarrow ((X2 = k3_yellow_3 X0 X1) \Leftrightarrow \\
& ((u1_struct_0 X2 = k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge \\
& (u1_orders_2 X2 = k2_yellow_3 (u1_struct_0 X0) (u1_struct_0 X0) \\
& (u1_struct_0 X1) (u1_struct_0 X1) (u1_orders_2 X0) (u1_orders_2 \\
& X1))))))
\end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2_struct_0 X1) \wedge ((v4_orders_2 X1) \wedge ((v7_waybel_0 X1) \wedge (l1_waybel_0 \\
& X1 X0)))) \Rightarrow (\forall X2.(m3_yellow_6 X2 (u1_struct_0 X1) X0) \Rightarrow (\forall X3. \\
& ((\neg v2_struct_0 X3) \wedge ((v4_orders_2 X3) \wedge ((v6_waybel_0 X3 X0) \wedge \\
& (v7_waybel_0 X3) \wedge (l1_waybel_0 X3 X0)))) \Rightarrow ((X3 = k8_yellow_6 X0 \\
& X1 X2) \Leftrightarrow ((g1_orders_2 (u1_struct_0 X3) (u1_orders_2 X3) = k3_yellow_3 \\
& X1 (k5_yellow_1 (u1_struct_0 X1) X2)) \wedge (\forall X4.(m1_subset_1 \\
& X4 (u1_struct_0 X1)) \Rightarrow (\forall X5.((v1_relat_1 X5) \wedge (v1_funct_1 \\
& X5)) \Rightarrow (((X4 \in u1_struct_0 X1) \wedge (X5 \in u1_struct_0 (k5_yellow_1 (u1_struct_0 \\
& X1) X2))) \Rightarrow (k1_binop_1 (u1_waybel_0 X0 X3) X4 X5 = k1_funct_1 (u1_waybel_0 \\
& X0 (k7_yellow_6 (u1_struct_0 X1) X0 X2 X4) (k1_funct_1 X5 X4))))))))))
\end{aligned} \tag{11}$$

Assume the following.

$$\forall X0. \forall X1.(l1_struct_0 X1) \Rightarrow (\forall X2.(m3_yellow_6 X2 X0 X1) \Rightarrow (v1_yellow_1 X2)) \tag{12}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 X0) \Rightarrow (X0 = g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0))) \tag{13}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2_struct_0 X1) \wedge ((v4_orders_2 X1) \wedge ((v7_waybel_0 X1) \wedge (l1_waybel_0 \\
& X1 X0)))) \Rightarrow (\forall X2.(m3_yellow_6 X2 (u1_struct_0 X1) X0) \Rightarrow (u1_struct_0 \\
& (k8_yellow_6 X0 X1 X2) = k2_zfmisc_1 (u1_struct_0 X1) (k4_card_3 \\
& (k12_pralg_1 (u1_struct_0 X1) X2))))
\end{aligned}$$