

t35_waybel_4

(TMLTCkqG38PCMu4nbuWohX3G4ZFaU8HUFJd)

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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 $v2_lattice3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k11_waybel_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_waybel_4 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_yellow_1 : \iota \Rightarrow \iota$ be given. Let $k7_waybel_0 : \iota \Rightarrow \iota$ be given. Let $k5_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_orders_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $r1_yellow_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_waybel_0 \\ & X2 X0) \wedge ((v12_waybel_0 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))))) \Rightarrow (r1_tarski (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\ & (k2_yellow_1 (k7_waybel_0 X0))) (k11_waybel_4 X0 X2) X1) (k5_waybel_0 \\ & X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\ & v1_xboole_0 X1) \wedge ((v1_waybel_0 X1 X0) \wedge ((v12_waybel_0 X1 X0) \wedge (\\ & m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (v5_orders_3 \\ & (k11_waybel_4 X0 X1) X0 (k2_yellow_1 (k7_waybel_0 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow ((v1_orders_2 (\\ & k8_waybel_4 X0)) \wedge (l1_orders_2 (k8_waybel_4 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge \\
& ((v5_orders_2 X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))) \wedge \\
& (\neg v1_xboole_0 X1) \wedge ((v1_waybel_0 X1 X0) \wedge ((v12_waybel_0 X1 X0) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((v1_funct_1 \\
& (k11_waybel_4 X0 X1) \wedge ((v1_funct_2 (k11_waybel_4 X0 X1) (u1_struct_0 \\
& X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))) \wedge (m1_subset_1 \\
& (k11_waybel_4 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) \\
& (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))))))))
\end{aligned} \tag{4}$$

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. ((v1_orders_2 \\
& X1) \wedge (l1_orders_2 X1)) \Rightarrow ((X1 = k8_waybel_4 X0) \Leftrightarrow (\forall X2. (\neg \\
& X2 \in u1_struct_0 X1) \wedge (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 \\
& X3 (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& (k2_yellow_1 (k7_waybel_0 X0)))))) \Rightarrow (\neg (X2 = X3) \wedge ((v5_orders_3 \\
& X3 X0 (k2_yellow_1 (k7_waybel_0 X0))) \wedge (\forall X4. (m1_subset_1 \\
& X4 (u1_struct_0 X0)) \Rightarrow (r1_tarski (k3_funct_2 (u1_struct_0 X0) \\
& (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0))) X3 X4) (k5_waybel_0 \\
& X0 X4)))))) \wedge ((\exists X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 \\
& (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& (k2_yellow_1 (k7_waybel_0 X0)))))) \wedge ((X2 = X3) \wedge ((v5_orders_3 \\
& X3 X0 (k2_yellow_1 (k7_waybel_0 X0))) \wedge (\forall X4. (m1_subset_1 \\
& X4 (u1_struct_0 X0)) \Rightarrow (r1_tarski (k3_funct_2 (u1_struct_0 X0) \\
& (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0))) X3 X4) (k5_waybel_0 \\
& X0 X4)))))) \Rightarrow (X2 \in u1_struct_0 X1) \wedge (\forall X3. \forall X4. (k4_tarski \\
& X3 X4 \in u1_orders_2 X1) \Leftrightarrow (\exists X5. ((v1_funct_1 X5) \wedge ((v1_funct_2 \\
& X5 (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))) \wedge \\
& (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& (k2_yellow_1 (k7_waybel_0 X0)))))) \wedge (\exists X6. ((v1_funct_1 \\
& X6) \wedge ((v1_funct_2 X6 (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 \\
& (k7_waybel_0 X0))) \wedge (m1_subset_1 X6 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))))) \wedge \\
& ((X3 = X5) \wedge ((X4 = X6) \wedge ((X3 \in u1_struct_0 X1) \wedge ((X4 \in u1_struct_0 X1) \wedge \\
& (r1_yellow_2 (u1_struct_0 X0) (k2_yellow_1 (k7_waybel_0 X0) \\
& X5 X6))))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow ((v2_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \tag{6}$$

Theorem 1

$$\begin{aligned} \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\ v1_xboole_0 X1) \wedge ((v1_waybel_0 X1 X0) \wedge ((v12_waybel_0 X1 X0) \wedge (\\ m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))))))) \Rightarrow (k11_waybel_4 \\ X0 X1 \in u1_struct_0 (k8_waybel_4 X0))) \end{aligned}$$