

t2_waybel_5

(TMPghRr5xqQ5MunFwoT6rdegw5yU3vupHGN)

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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 $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v3_waybel_3 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r3_orders_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v2_lattice3 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
& ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\exists X2.(\\
& (\neg v1_xboole_0 X2) \wedge ((v1_waybel_0 X2 X0) \wedge ((v12_waybel_0 X2 X0) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))))) \wedge ((r3_orders_2 \\
& X0 X1 (k1_yellow_0 X0 X2)) \wedge (\forall X3.((\neg v1_xboole_0 X3) \wedge ((v1_waybel_0 \\
& X3 X0) \wedge ((v12_waybel_0 X3 X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
& X0)))))) \Rightarrow ((r3_orders_2 X0 X1 (k1_yellow_0 X0 X3)) \Rightarrow (r1_tarski \\
& X2 X3)))))) \Rightarrow (v3_waybel_3 X0))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v2_lattice3 X0) \wedge ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
& ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (((\neg v1_xboole_0 \\
& (k1_waybel_3 X0 X1)) \wedge ((v1_waybel_0 (k1_waybel_3 X0 X1) X0) \wedge ((\\
& v12_waybel_0 (k1_waybel_3 X0 X1) X0) \wedge (m1_subset_1 (k1_waybel_3 \\
& X0 X1) (k1_zfmisc_1 (u1_struct_0 X0)))))) \wedge ((r3_orders_2 X0 X1 \\
& (k1_yellow_0 X0 (k1_waybel_3 X0 X1)) \wedge (\forall X2.((\neg v1_xboole_0 \\
& X2) \wedge ((v1_waybel_0 X2 X0) \wedge ((v12_waybel_0 X2 X0) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((r3_orders_2 X0 X1 (k1_yellow_0 \\
& X0 X2)) \Rightarrow (r1_tarski (k1_waybel_3 X0 X1) X2))))))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v2_lattice3 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ & ((v3_waybel_3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\exists X2.((\neg v1_xboole_0 X2) \wedge ((v1_waybel_0 X2 X0) \wedge ((v12_waybel_0 \\ & X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))))) \wedge ((\\ & r3_orders_2 X0 X1 (k1_yellow_0 X0 X2)) \wedge (\forall X3.((\neg v1_xboole_0 \\ & X3) \wedge ((v1_waybel_0 X3 X0) \wedge ((v12_waybel_0 X3 X0) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((r3_orders_2 X0 X1 (k1_yellow_0 \\ & X0 X3)) \Rightarrow (r1_tarski X2 X3)))))) \end{aligned}$$