

t35_waybel13 (TMXYy-
DqysjmEYSYyj7rU27V2nDG7DspFVBM)

October 27, 2020

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 $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v1_yellow_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_waybel_8 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_yellow_1 : \iota \Rightarrow \iota$ be given. Let $v7_waybel_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v22_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_waybel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
 & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
 & ((\exists X1. \exists X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
 & (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1)))) \wedge ((v7_waybel_1 \\
 & X2 (k3_yellow_1 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & (u1_struct_0 (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1)))))) \wedge \\
 & ((v22_waybel_0 X2 (k3_yellow_1 X1) (k3_yellow_1 X1)) \wedge (r5_waybel_1 \\
 & X0 (k1_yellow_2 (k3_yellow_1 X1) (k3_yellow_1 X1) X2)))) \Rightarrow (v2_waybel_8 \\
 & X0))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
& (\neg(\exists X1.(\neg v1_xboole_0 X1) \wedge (\exists X2.((v4_yellow_0 X2 \\
& (k3_yellow_1 X1)) \wedge (m1_yellow_0 X2 (k3_yellow_1 X1))) \wedge ((v7_yellow_0 \\
& X2 (k3_yellow_1 X1)) \wedge ((v4_waybel_0 X2 (k3_yellow_1 X1)) \wedge (r5_waybel_1 \\
& X0 X2)))))) \wedge (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 (k3_yellow_1 X1)) (u1_struct_0 \\
& (k3_yellow_1 X1))) \wedge ((v7_waybel_1 X2 (k3_yellow_1 X1)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k3_yellow_1 X1)) (\\
& u1_struct_0 (k3_yellow_1 X1)))))))))) \Rightarrow (\neg(v22_waybel_0 X2 (k3_yellow_1 \\
& X1) (k3_yellow_1 X1)) \wedge (r5_waybel_1 X0 (k1_yellow_2 (k3_yellow_1 \\
& X1) (k3_yellow_1 X1) X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v1_yellow_0 X0) \wedge \\
& (l1_orders_2 X0)))))) \Rightarrow (\neg(v2_waybel_8 X0) \wedge (\forall X1.(\neg v1_xboole_0 \\
& X1) \Rightarrow (\forall X2.((v4_yellow_0 X2 (k3_yellow_1 X1)) \wedge (m1_yellow_0 \\
& X2 (k3_yellow_1 X1))) \Rightarrow (\neg(v7_yellow_0 X2 (k3_yellow_1 X1)) \wedge ((\\
& v4_waybel_0 X2 (k3_yellow_1 X1)) \wedge (r5_waybel_1 X0 X2))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v1_yellow_0 X0) \wedge \\
& (l1_orders_2 X0)))))) \Rightarrow ((\neg(v2_waybel_8 X0) \wedge (\forall X1.(\neg v1_xboole_0 \\
& X1) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
& (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1))) \wedge ((v7_waybel_1 \\
& X2 (k3_yellow_1 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1)))))))))) \Rightarrow \\
& (\neg(v22_waybel_0 X2 (k3_yellow_1 X1) (k3_yellow_1 X1)) \wedge (r5_waybel_1 \\
& X0 (k1_yellow_2 (k3_yellow_1 X1) (k3_yellow_1 X1) X2)))) \wedge ((\\
& \exists X1.\exists X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
& (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1))) \wedge ((v7_waybel_1 \\
& X2 (k3_yellow_1 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 (k3_yellow_1 X1)) (u1_struct_0 (k3_yellow_1 X1)))))))) \wedge \\
& ((v22_waybel_0 X2 (k3_yellow_1 X1) (k3_yellow_1 X1)) \wedge (r5_waybel_1 \\
& X0 (k1_yellow_2 (k3_yellow_1 X1) (k3_yellow_1 X1) X2)))) \Rightarrow (v2_waybel_8 \\
& X0))
\end{aligned}$$