

t29_waybel_7

(TMc5HsNqifXMDcfHFGPCHP7bqKoTGSg197T)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_yellow_1 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $r1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_yellow_1 : \iota \Rightarrow \iota$ be given. Let $v13_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_waybel_7 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r2_waybel_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_waybel_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ 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 $l1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k2_yellow_1 \\
 & \quad (u1_pre_topc X0)))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\
 & \quad (k2_yellow_1 (u1_pre_topc X0)))) \Rightarrow ((r1_waybel_3 (k2_yellow_1 \\
 & \quad (u1_pre_topc X0)) X1 X2) \Rightarrow (\forall X3. ((\neg v1_xboole_0 X3) \wedge ((v1_subset_1 \\
 & \quad X3 (u1_struct_0 (k3_yellow_1 (u1_struct_0 X0)))) \wedge ((v2_waybel_0 \\
 & \quad X3 (k3_yellow_1 (u1_struct_0 X0))) \wedge ((v13_waybel_0 X3 (k3_yellow_1 \\
 & \quad (u1_struct_0 X0))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & \quad (k3_yellow_1 (u1_struct_0 X0)))))))))) \Rightarrow (\neg (X1 \in X3) \wedge (\forall X4. \\
 & \quad (m1_subset_1 X4 (u1_struct_0 X0) \Rightarrow (\neg (X4 \in X2) \wedge (r1_waybel_7 X0 \\
 & \quad X3 X4)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & \quad X0))) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v2_waybel_0 X1 (k3_yellow_1 \\
 & \quad (u1_struct_0 X0))) \wedge ((v13_waybel_0 X1 (k3_yellow_1 (u1_struct_0 \\
 & \quad X0))) \wedge ((v3_waybel_7 X1 (k3_yellow_1 (u1_struct_0 X0))) \wedge (m1_subset_1 \\
 & \quad X1 (k1_zfmisc_1 (u1_struct_0 (k3_yellow_1 (u1_struct_0 X0)))))))))) \Rightarrow \\
 & \quad (\forall X2. (r1_waybel_7 X0 X1 X2) \Leftrightarrow (r2_waybel_7 X0 X1 X2))
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(\neg v2_struct_0 (k3_yellow_1 X0)) \wedge ((v1_orders_2 (k3_yellow_1 X0)) \wedge ((v3_orders_2 (k3_yellow_1 X0)) \wedge ((v4_orders_2 (k3_yellow_1 X0)) \wedge (v5_orders_2 (k3_yellow_1 X0)))))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k3_yellow_1 X0)) \wedge (l1_orders_2 (k3_yellow_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_z_fmisc_1 (u1_struct_0 X0))) \Rightarrow (((\neg v1_xboole_0 X1) \wedge ((v2_waybel_0 X1 X0) \wedge ((v13_waybel_0 X1 X0) \wedge (v3_waybel_7 X1 X0)))) \Rightarrow ((\neg v1_xboole_0 X1) \wedge ((v1_subset_1 X1 (u1_struct_0 X0)) \wedge ((v2_waybel_0 X1 X0) \wedge (v13_waybel_0 X1 X0)))))) \quad (5)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k2_yellow_1 (u1_pre_topc X0)))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k2_yellow_1 (u1_pre_topc X0)))) \Rightarrow ((r1_waybel_3 (k2_yellow_1 (u1_pre_topc X0)) X1 X2) \Rightarrow (\forall X3.((\neg v1_xboole_0 X3) \wedge ((v2_waybel_0 X3 (k3_yellow_1 (u1_struct_0 X0)) \wedge ((v13_waybel_0 X3 (k3_yellow_1 (u1_struct_0 X0)) \wedge (v3_waybel_7 X3 (k3_yellow_1 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_z_fmisc_1 (u1_struct_0 (k3_yellow_1 (u1_struct_0 X0)))))))))) \Rightarrow (\neg (X1 \in X3) \wedge (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\neg (X4 \in X2) \wedge (r2_waybel_7 X0 X3 X4))))))))))$$