

t13_waybel29

(TMbA9a86yVAn8x9S4B3wxJumeYTd4qNUk6P)

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Let $v2_struct_0 : \iota \Rightarrow o$ 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 $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v4_waybel11 : \iota \Rightarrow o$ be given. Let $m1_yellow_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $v1_waybel11 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v13_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (& \neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge (l1_orders_2 X1))) \Rightarrow ((g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0) = g1_orders_2 (u1_struct_0 X1) (u1_orders_2 X1)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (((X2 = X3) \wedge (v1_waybel11 X2 X0)) \Rightarrow (v1_waybel11 X3 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. (l1_orders_2 X1) \Rightarrow ((g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0) = g1_orders_2 (u1_struct_0 X1) (u1_orders_2 X1)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow ((X2 = X3) \Rightarrow (((v12_waybel_0 X2 X0) \Rightarrow (v12_waybel_0 X3 X1)) \wedge ((v13_waybel_0 X2 X0) \Rightarrow (v13_waybel_0 X3 X1)))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\Rightarrow(\forall X2.\forall X3.(g1_orders_2 X0 X1 = g1_orders_2 X2 X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(m1_yellow_9 X1 X0)\Rightarrow(l1_waybel_9 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_waybel_9 X0)\Rightarrow((l1_pre_topc X0)\wedge(l1_orders_2 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(l1_waybel_9 X1)\Rightarrow((m1_yellow_9 X1 X0)\Leftrightarrow(g1_orders_2 (u1_struct_0 X1) (u1_orders_2 X1) = g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge(l1_waybel_9 X0)))\Rightarrow((v4_waybel11 X0)\Leftrightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v3_pre_topc X1 X0)\Leftrightarrow((v1_waybel11 X1 X0)\wedge(v13_waybel_0 X1 X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \quad (11)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v3_pre_topc X1 X0)\Leftrightarrow(X1 \in u1_pre_topc X0))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski X0 X1)\wedge(r1_tarski X1 X0)) \quad (13)$$

Assume the following.

$$\forall X0.((v5_orders_2 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. (m1_yellow_9 X1 X0) \Rightarrow (v5_orders_2 X1)) \quad (14)$$

Assume the following.

$$\forall X0.((v3_orders_2 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. (m1_yellow_9 X1 X0) \Rightarrow (v3_orders_2 X1)) \quad (15)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1. (m1_yellow_9 X1 X0) \Rightarrow (v24_waybel_0 X1)) \quad (16)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. (m1_yellow_9 X1 X0) \Rightarrow (\neg v2_struct_0 X1)) \quad (17)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1. ((v4_waybel11 X1) \wedge (m1_yellow_9 X1 X0)) \Rightarrow (\forall X2. ((v4_waybel11 X2) \wedge (m1_yellow_9 X2 X0)) \Rightarrow (u1_pre_topc X1 = u1_pre_topc X2)))$$