

t18_waybel30 (TMXHto- qSGC349fF2QuQ2u4QoUeT3AmaRpxM)

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Let $v2_pre_topc : \iota \Rightarrow o$ 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 $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v3_lattice3 : \iota \Rightarrow o$ be given. Let $v2_waybel19 : \iota \Rightarrow o$ be given. Let $v2_waybel_2 : \iota \Rightarrow o$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ be given. Let $v4_waybel11 : \iota \Rightarrow o$ be given. Let $m1_yellow_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tops_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((v5_orders_2 X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge \\ & ((v3_lattice3 X0) \wedge ((v2_waybel19 X0) \wedge ((v2_waybel_2 X0) \wedge (l1_waybel_9 \\ & X0)))))))))) \Rightarrow (\forall X1.((v4_waybel11 X1) \wedge (m1_yellow_9 X1 \\ & X0)) \Rightarrow (\forall X2.((v13_waybel_0 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0)))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X1)))) \Rightarrow ((X2 = X3) \Rightarrow (k1_tops_1 X0 X2 = k1_tops_1 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k3_subset_1 X0 (k3_subset_1 X0 X1) = X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \Rightarrow (\forall X2. \forall X3. (g1_orders_2 X0 X1 = g1_orders_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\wedge((v12_waybel_0 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow(v13_waybel_0 (k3_subset_1 (u1_struct_0 X0) X1) X0)) \quad (4)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(m1_yellow_9 X1 X0)\Rightarrow(l1_waybel_9 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(l1_waybel_9 X0)\Rightarrow((l1_pre_topc X0)\wedge(l1_orders_2 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(m1_subset_1 (k3_subset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k2_pre_topc X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (9)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(l1_waybel_9 X1)\Rightarrow((m1_yellow_9 X1 X0)\Leftrightarrow(g1_orders_2 (u1_struct_0 X1) (u1_orders_2 X1) = g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0)))) \quad (10)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(k1_tops_1 X0 X1 = k3_subset_1 (u1_struct_0 X0) (k2_pre_topc X0 (k3_subset_1 (u1_struct_0 X0) X1)))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow((v1_lattice3 X0)\Rightarrow(\neg v2_struct_0 X0)) \quad (12)$$

Theorem 1

$$\forall X0.((v2_pre_topc X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 X0)\wedge((v5_orders_2 X0)\wedge((v1_lattice3 X0)\wedge((v2_lattice3 X0)\wedge((v3_lattice3 X0)\wedge((v2_waybel19 X0)\wedge((v2_waybel_2 X0)\wedge(l1_waybel_9 X0))))))))\Rightarrow(\forall X1.((v4_waybel11 X1)\wedge(m1_yellow_9 X1 X0))\Rightarrow(\forall X2.((v12_waybel_0 X2 X0)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow(\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X1)))\Rightarrow((X2 = X3)\Rightarrow(k2_pre_topc X0 X2 = k2_pre_topc X1 X3))))))$$