

l33_waybel25

(TMG2ysjdicdM4Zenakut2hFApTcF5LuNv7S)

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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 $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_waybel24 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_waybel25 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_yellow_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_waybel_9 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge ((v3_orders_2 \\ & X1) \wedge (l1_waybel_9 X1)))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge ((v5_pre_topc X2 X0 X1) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\ & X1)))))) \Leftrightarrow (m1_subset_1 X2 (u1_struct_0 (k3_waybel24 X0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (u1_struct_0 X0 = u1_struct_0 (k1_waybel25 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v3_orders_2 (k1_waybel25 X0)) \wedge (v1_waybel_9 (k1_waybel25 X0))) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ & (l1_pre_topc X0))) \wedge ((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_waybel_9 \\ & X1)))) \Rightarrow ((\neg v2_struct_0 (k3_waybel24 X0 X1)) \wedge (v1_orders_2 (k3_waybel24 \\ & X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\Rightarrow((v2_pre_topc\ (k1_waybel25\ X0))\wedge(v1_waybel_9\ (k1_waybel25\ X0))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0)\wedge(l1_pre_topc\ X0))\Rightarrow((\neg v2_struct_0\ (k1_waybel25\ X0))\wedge(v1_waybel_9\ (k1_waybel25\ X0))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0)\wedge(l1_struct_0\ X0))\Rightarrow(\neg v1_xboole_0\ (u1_struct_0\ X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_struct_0\ X0)\wedge(l1_waybel_0\ X1\ X0))\Rightarrow \\ & ((v1_funct_1\ (u1_waybel_0\ X0\ X1))\wedge((v1_funct_2\ (u1_waybel_0 \\ & X0\ X1)\ (u1_struct_0\ X1)\ (u1_struct_0\ X0))\wedge(m1_subset_1\ (u1_waybel_0 \\ & X0\ X1)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X1)\ (u1_struct_0 \\ & X0)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(\forall X1.(l1_waybel_0\ X1\ X0)\Rightarrow(l1_orders_2\ X1)) \quad (9)$$

Assume the following.

$$\forall X0.(l1_orders_2\ X0)\Rightarrow(l1_struct_0\ X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge((\neg v2_struct_0\ X1)\wedge(l1_waybel_9\ X1)))\Rightarrow((v1_orders_2\ (k3_waybel24\ X0\ X1))\wedge(l1_orders_2\ (k3_waybel24\ X0\ X1))) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0\ X0)\wedge \\ & (((\neg v2_struct_0\ X1)\wedge(l1_orders_2\ X1))\wedge(((v1_funct_1\ X2)\wedge((\\ & v1_funct_2\ X2\ X0\ (u1_struct_0\ X1))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ (u1_struct_0\ X1))))))\wedge(m1_subset_1\ X3\ X0))))\Rightarrow \\ & (m1_subset_1\ (k2_yellow_6\ X0\ X1\ X2\ X3)\ (u1_struct_0\ X1)) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow((v1_waybel_9\ (k1_waybel25\ X0))\wedge(l1_waybel_9\ (k1_waybel25\ X0))) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v4_orders_2 X2) \wedge ((v7_waybel_0 \\ & X2) \wedge (l1_waybel_0 X2 (k3_waybel24 X0 (k1_waybel25 X1)))))) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X2)) \Rightarrow (((v1_funct_1 (k2_yellow_6 \\ & (u1_struct_0 X2) (k3_waybel24 X0 (k1_waybel25 X1)) (u1_waybel_0 \\ & (k3_waybel24 X0 (k1_waybel25 X1)) X2) X3)) \wedge ((v1_funct_2 (k2_yellow_6 \\ & (u1_struct_0 X2) (k3_waybel24 X0 (k1_waybel25 X1)) (u1_waybel_0 \\ & (k3_waybel24 X0 (k1_waybel25 X1)) X2) X3) (u1_struct_0 X0) (u1_struct_0 \\ & (k1_waybel25 X1))) \wedge (m1_subset_1 (k2_yellow_6 (u1_struct_0 X2) \\ & (k3_waybel24 X0 (k1_waybel25 X1)) (u1_waybel_0 (k3_waybel24 X0 \\ & (k1_waybel25 X1)) X2) X3) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 (k1_waybel25 X1)))))) \wedge ((v1_funct_1 (k2_yellow_6 \\ & (u1_struct_0 X2) (k3_waybel24 X0 (k1_waybel25 X1)) (u1_waybel_0 \\ & (k3_waybel24 X0 (k1_waybel25 X1)) X2) X3)) \wedge ((v1_funct_2 (k2_yellow_6 \\ & (u1_struct_0 X2) (k3_waybel24 X0 (k1_waybel25 X1)) (u1_waybel_0 \\ & (k3_waybel24 X0 (k1_waybel25 X1)) X2) X3) (u1_struct_0 X0) (u1_struct_0 \\ & X1)) \wedge (m1_subset_1 (k2_yellow_6 (u1_struct_0 X2) (k3_waybel24 \\ & X0 (k1_waybel25 X1)) (u1_waybel_0 (k3_waybel24 X0 (k1_waybel25 \\ & X1)) X2) X3) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\ & X1)))))))))) \end{aligned}$$