

t31_waybel25

(TMMSHjyRGmsj8rzze1XzEt5Ey6BHsPYTLDp)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v1_waybel25 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $v10_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_waybel25 : \iota \Rightarrow \iota$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_waybel_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_reset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_waybel_9 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ be given. Let $r1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge ((v7_waybel_0 X1) \wedge (l1_waybel_0 X1 X0))) \Rightarrow \\ & ((v10_waybel_0 X1 X0) \Rightarrow (v1_waybel_0 (k2_reset_1 (u1_struct_0 \\ & X0) (k1_waybel_0 X0 X1)) X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0)) \Rightarrow (k2_reset_1 X0 X1 = k10_xtuple_0 X1) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow ((\neg v2_struct_0 (k1_waybel25 X0)) \wedge (v1_waybel_9 (k1_waybel25 X0))) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (l1_waybel_0 X1 X0))) \Rightarrow (\neg v1_xboole_0 (k10_xtuple_0 \\ & (u1_waybel_0 X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_struct_0 X0) \wedge (l1_waybel_0 X1 X0)) \Rightarrow \\ & ((v1_funct_1 (u1_waybel_0 X0 X1)) \wedge ((v1_funct_2 (u1_waybel_0 \\ & X0 X1) (u1_struct_0 X1) (u1_struct_0 X0)) \wedge (m1_subset_1 (u1_waybel_0 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\ & X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (l1_waybel_9 X0) \Rightarrow ((l1_pre_topc X0) \wedge (l1_orders_2 X0)) \quad (6)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0)) \Rightarrow (\\ & m1_subset_1 (k2_relset_1 X0 X1) (k1_zfmisc_1 X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow ((v1_waybel_9 (k1_waybel25 X0)) \wedge \\ & (l1_waybel_9 (k1_waybel25 X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_waybel_0 X1 X0)) \Rightarrow (k1_waybel_0 X0 X1 = u1_waybel_0 \\ & X0 X1)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow ((v1_waybel25 X0) \Leftrightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_waybel_0 \\ & X1 (k1_waybel25 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & (k1_waybel25 X0)))))) \Rightarrow ((r1_yellow_0 (k1_waybel25 X0) X1) \wedge (\forall X2. \\ & ((v3_pre_topc X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow (\neg (k1_yellow_0 (k1_waybel25 X0) X1 \in X2) \wedge (r1_xboole_0 \\ & X1 X2)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. (l1_waybel_0 X1 X0) \Rightarrow \\ & ((r1_waybel_9 X0 X1) \Leftrightarrow (r1_yellow_0 X0 (k2_relset_1 (u1_struct_0 \\ & X0) (u1_waybel_0 X0 X1)))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (14)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge(v2_pre_topc X0)\wedge((v1_waybel25 \\ X0)\wedge(l1_pre_topc X0)))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v7_waybel_0 \\ X1)\wedge((v10_waybel_0 X1 (k1_waybel25 X0))\wedge(l1_waybel_0 X1 (k1_waybel25 \\ X0))))))\Rightarrow(r1_waybel_9 (k1_waybel25 X0) X1)) \end{aligned}$$