

t21_waybel24

(TMSjQm8o5kJ7yTXsJNFftQcdWes2gVY87gG)

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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 $v3_orders_2 : \iota \Rightarrow o$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $k3_waybel24 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ 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 $v1_monoid_0 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v4_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_yellow_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\exists X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \wedge ((\neg v1_xboole_0 X1) \wedge ((v12_waybel_0 X1 X0) \wedge (v13_waybel_0 X1 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (v2_pre_topc X0) \wedge (l1_pre_topc X0)) \wedge ((\neg v2_struct_0 X1) \wedge (v2_pre_topc X1) \wedge (l1_waybel_9 X1))) \Rightarrow ((v1_monoid_0 (k3_waybel24 X0 X1)) \wedge (v1_orders_2 (k3_waybel24 X0 X1))) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ & (l1_pre_topc X0))) \wedge ((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_waybel_9 \\ & X1)))) \Rightarrow ((\neg v2_struct_0 (k3_waybel24 X0 X1)) \wedge (v1_orders_2 (k3_waybel24 \\ & X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (l1_struct_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_pre_topc X0) \wedge ((\neg v2_struct_0 X1) \wedge \\ & (l1_waybel_9 X1))) \Rightarrow ((v1_orders_2 (k3_waybel24 X0 X1)) \wedge (l1_orders_2 \\ & (k3_waybel24 X0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ & (l1_waybel_9 X1))) \Rightarrow (\forall X2. ((v1_orders_2 X2) \wedge (l1_orders_2 \\ & X2)) \Rightarrow ((X2 = k3_waybel24 X0 X1) \Leftrightarrow (((v4_yellow_0 X2 (k6_yellow_1 \\ & (u1_struct_0 X0) X1)) \wedge (m1_yellow_0 X2 (k6_yellow_1 (u1_struct_0 \\ & X0) X1))) \wedge (\forall X3. (X3 \in u1_struct_0 X2) \Leftrightarrow (\exists X4. ((v1_funct_1 \\ & X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\ & X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \wedge \\ & ((X3 = X4) \wedge (v5_pre_topc X4 X0 X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (9)$$

Assume the following.

$$\forall X0. ((v1_monoid_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \quad (10)$$

Theorem 1

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