

t8_waybel28

(TMUSdd37HmUwfkQsSTqMP2jagVWUJWWqd5i)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v6_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_struct_0 X0) \Rightarrow (\exists X1.(l1_waybel_0 X1 X0) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\ & X1) \wedge ((v6_waybel_0 X1 X0) \wedge (v7_waybel_0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_struct_0 X1)) \Rightarrow ((u1_struct_0 X0 = u1_struct_0 \\ & X1) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v4_orders_2 X2) \wedge ((v6_waybel_0 \\ & X2 X0) \wedge ((v7_waybel_0 X2) \wedge (l1_waybel_0 X2 X0)))))) \Rightarrow ((\neg v2_struct_0 \\ & X2) \wedge ((v4_orders_2 X2) \wedge ((v6_waybel_0 X2 X1) \wedge ((v7_waybel_0 X2) \wedge \\ & (l1_waybel_0 X2 X1))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((l1_struct_0 X0) \wedge \\ & ((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \wedge ((v1_funct_1 \\ & X3) \wedge ((v1_funct_2 X3 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 (u1_struct_0 X0))))))) \Rightarrow (\forall X4. \forall X5. \\ & \forall X6. \forall X7. (g1_waybel_0 X0 X1 X2 X3 = g1_waybel_0 X4 X5 \\ & X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.((v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (v1_xboole_0 (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_struct_0 X0) \wedge (l1_waybel_0 X1 X0)) \Rightarrow \\ & ((v1_funct_1 (u1_waybel_0 X0 X1)) \wedge ((v1_funct_2 (u1_waybel_0 \\ & X0 X1) (u1_struct_0 X1) (u1_struct_0 X0)) \wedge (m1_subset_1 (u1_waybel_0 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\ & X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (7)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (\forall X1. (l1_waybel_0 X1 X0) \Rightarrow (l1_orders_2 X1)) \quad (8)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((l1_struct_0 X0) \wedge \\ & ((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \wedge ((v1_funct_1 \\ & X3) \wedge ((v1_funct_2 X3 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 (u1_struct_0 X0)))))))) \Rightarrow ((v6_waybel_0 (g1_waybel_0 \\ & X0 X1 X2 X3) X0) \wedge (l1_waybel_0 (g1_waybel_0 X0 X1 X2 X3) X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_struct_0 X0) \wedge (l1_waybel_0 X1 X0)) \Rightarrow \\ & ((v6_waybel_0 X1 X0) \Rightarrow (X1 = g1_waybel_0 X0 (u1_struct_0 X1) (u1_orders_2 \\ & X1) (u1_waybel_0 X0 X1))) \end{aligned} \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge ((v4_orders_2 X1) \wedge ((v7_waybel_0 X1) \wedge (l1_orders_2 \\ & X1)))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow ((\neg v2_struct_0 (g1_waybel_0 \\ & X0 (u1_struct_0 X1) (u1_orders_2 X1) X2)) \wedge ((v4_orders_2 (g1_waybel_0 \\ & X0 (u1_struct_0 X1) (u1_orders_2 X1) X2)) \wedge ((v7_waybel_0 (g1_waybel_0 \\ & X0 (u1_struct_0 X1) (u1_orders_2 X1) X2)) \wedge (l1_waybel_0 (g1_waybel_0 \\ & X0 (u1_struct_0 X1) (u1_orders_2 X1) X2) X0)))))) \end{aligned}$$