

t2_waybel33 (TMJaDimTMvzaRBwhx- ifG3tU2yqFzyMkMmE2)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((\neg v1_xboole_0 X1) \wedge (\neg v1_xboole_0 X3) \wedge ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 X1) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 X2 X3) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X2 X3)))))) \Rightarrow ((r1_funct_2 X0 X1 X2 X3 X4 X5) \Leftrightarrow (X4 = X5)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((l1_struct_0 X0) \wedge ((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X1 (u1_struct_0 X0)))))))) \Rightarrow (\forall X4. \forall X5. \forall X6. \forall X7. (g1_waybel_0 X0 X1 X2 X3 = g1_waybel_0 X4 X5 X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_struct_0 X0) \wedge (l1_waybel_0 X1 X0)) \Rightarrow \\ & ((v1_funct_1 (u1_waybel_0 X0 X1)) \wedge ((v1_funct_2 (u1_waybel_0 \\ & X0 X1) (u1_struct_0 X1) (u1_struct_0 X0)) \wedge (m1_subset_1 (u1_waybel_0 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 \\ & X0)))))) \end{aligned} \quad (4)$$

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.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (\forall X1. (l1_waybel_0 X1 X0) \Rightarrow (l1_orders_2 X1)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((l1_struct_0 X0) \wedge \\ & ((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \wedge ((v1_funct_1 \\ & X3) \wedge ((v1_funct_2 X3 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 (u1_struct_0 X0)))))))) \Rightarrow ((v6_waybel_0 (g1_waybel_0 \\ & X0 X1 X2 X3) X0) \wedge (l1_waybel_0 (g1_waybel_0 X0 X1 X2 X3) X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l1_struct_0 X0) \wedge (l1_waybel_0 X1 X0)) \Rightarrow \\ & ((v6_waybel_0 X1 X0) \Rightarrow (X1 = g1_waybel_0 X0 (u1_struct_0 X1) (u1_orders_2 \\ & X1) (u1_waybel_0 X0 X1))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_struct_0 X1)) \Rightarrow ((u1_struct_0 X0 = u1_struct_0 \\ & X1) \Rightarrow (\forall X2. (l1_waybel_0 X2 X0) \Rightarrow (\exists X3. ((v6_waybel_0 \\ & X3 X1) \wedge (l1_waybel_0 X3 X1)) \wedge ((g1_orders_2 (u1_struct_0 X2) (u1_orders_2 \\ & X2) = g1_orders_2 (u1_struct_0 X3) (u1_orders_2 X3)) \wedge (r1_funct_2 \\ & (u1_struct_0 X2) (u1_struct_0 X0) (u1_struct_0 X3) (u1_struct_0 \\ & X1) (u1_waybel_0 X0 X2) (u1_waybel_0 X1 X3)))))) \end{aligned}$$