

t8_yellow13

(TMbNwuiCRXBcJeYerc8tGYeto5opABmYFiY)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k3_yellow_2 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_yellow_1 : \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $k7_waybel_0 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v5_orders_2 \\ &X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ &X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k5_waybel_0 \\ &X0 X1 = k5_waybel_0 X0 X2) \Rightarrow (X1 = X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow ((\neg v2_struct_0 (k2_yellow_1 X0)) \wedge (v1_orders_2 (k2_yellow_1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\neg v1_xboole_0 (k7_waybel_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow ((v1_funct_1 (k3_yellow_2 \\ X0)) \wedge ((v1_funct_2 (k3_yellow_2 X0) (u1_struct_0 X0) (u1_struct_0 \\ (k2_yellow_1 (k7_waybel_0 X0)))) \wedge (m1_subset_1 (k3_yellow_2 \\ X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 (\\ k2_yellow_1 (k7_waybel_0 X0)))))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k2_yellow_1 X0) \wedge (l1_orders_2 (k2_yellow_1 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v1_funct_1 \\ X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 \\ (k7_waybel_0 X0)))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 (k7_waybel_0 X0)))))))))) \Rightarrow \\ ((X1 = k3_yellow_2 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 (k2_yellow_1 \\ (k7_waybel_0 X0))) X1 X2 = k5_waybel_0 X0 X2))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\forall X1. \\ ((\neg v2_struct_0 X1) \wedge (l1_struct_0 X1)) \Rightarrow (\forall X2.((v1_funct_1 \\ X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\ X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\ ((v2_funct_1 X2) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((k3_funct_2 (\\ u1_struct_0 X0) (u1_struct_0 X1) X2 X3 = k3_funct_2 (u1_struct_0 \\ X0) (u1_struct_0 X1) X2 X4) \Rightarrow (X3 = X4)))))) \end{aligned} \quad (8)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (v2_funct_1 (k3_yellow_2 \\ X0))$$