

t36_yellow_2

(TMQ8MRAW1RZ8TJZmQrEsFv4GJQice9eSxki)

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Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (k6_setfam_1 X0 X1 = k1_setfam_1 X1) \quad (3)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (m1_subset_1 (k6_setfam_1 X0 X1) (k1_zfmisc_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((X0 \neq k1_xboole_0) \Rightarrow ((X1 = k1_setfam_1 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\forall X3. (X3 \in X0) \Rightarrow (X2 \in X3)))) \wedge ((X0 = k1_xboole_0) \Rightarrow ((X1 = k1_setfam_1 X0) \Leftrightarrow (X1 = k1_xboole_0)))) \quad (6)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v12_waybel_0 X1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((X2 \in X1) \wedge (r1_orders_2 X0 X3 X2)) \Rightarrow (X3 \in X1)))))) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.(l1_orders_2\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k1_zfmisc_1\ (u1_struct_0\ X0)))) \Rightarrow ((\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0))) \Rightarrow ((X2 \in X1) \Rightarrow (v12_waybel_0\ X2 \\ X0))) \Rightarrow ((v12_waybel_0\ (k6_setfam_1\ (u1_struct_0\ X0)\ X1)\ X0) \wedge (\\ m1_subset_1\ (k6_setfam_1\ (u1_struct_0\ X0)\ X1)\ (k1_zfmisc_1\ (u1_struct_0 \\ X0)))))) \end{aligned}$$