

t42_pcs_0 (TMTdP-
mzX6QHpqotY5BgQ78oW4qHjKsZj1Mk)

October 27, 2020

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 $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (k23_pcs_0 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \quad (2)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 X0 X1 X2) \Leftrightarrow (k4_tarski X1 X2 \in u1_orders_2 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \Rightarrow ((X2 = k23_pcs_0 X0 X1) \Leftrightarrow (\forall X3. \forall X4. (k4_tarski X3 X4 \in X2) \Leftrightarrow ((X3 \in X1) \wedge ((X4 \in X1) \wedge (\forall X5. \neg (X5 \in X3) \wedge (\forall X6. \neg (X6 \in X4) \wedge (k4_tarski X5 X6 \in u1_orders_2 X0)))))))) \quad (4)$$

Theorem 1

$$\forall X0. (l1_orders_2 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (\forall X2. \forall X3. (k4_tarski X2 X3 \in k23_pcs_0 X0 X1) \Leftrightarrow ((X2 \in X1) \wedge ((X3 \in X1) \wedge (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\neg (X4 \in X2) \wedge (\forall X5. (m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\neg (X5 \in X3) \wedge (r1_orders_2 X0 X4 X5))))))))))$$