

t46_pcs_0
(TMRvdPcUBjc4Tw8o9PLp1M54mdujda6eYb3)

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Let $l2_pcs_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k25_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g2_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $l1_pcs_0 : \iota \Rightarrow o$ be given. Let $k24_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v12_pcs_0 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_pcs_0 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0)))) \Rightarrow (\forall X3. \forall X4. \forall X5. (g2_pcs_0 X0 X1 X2 = \\ & g2_pcs_0 X3 X4 X5) \Rightarrow ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = X5)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l2_pcs_0 X0) \Rightarrow ((l1_orders_2 X0) \wedge (l1_pcs_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (l2_pcs_0 X0) \Rightarrow (l2_pcs_0 (k25_pcs_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (l1_pcs_0 X0) \Rightarrow (m1_subset_1 (k24_pcs_0 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (k23_pcs_0 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0)))) \Rightarrow ((v12_pcs_0 (g2_pcs_0 X0 X1 X2)) \wedge (l2_pcs_0 (g2_pcs_0 \\ & X0 X1 X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pcs_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_pcs_0 \\ X0 X1 X2) \Leftrightarrow (k4_tarski X1 X2 \in u1_pcs_0 X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.k25_pcs_0 X0 X1 = g2_pcs_0 \\ X1 (k23_pcs_0 X0 X1) (k24_pcs_0 X0 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pcs_0 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X1))) \Rightarrow ((X2 = k24_pcs_0 X0 X1) \Leftrightarrow (\\ \forall X3.\forall X4.(k4_tarski X3 X4 \in X2) \Leftrightarrow ((X3 \in X1) \wedge ((X4 \in X1) \wedge \\ (\forall X5.\forall X6.((X5 \in X3) \wedge (X6 \in X4)) \Rightarrow (k4_tarski X5 X6 \in u1_pcs_0 \\ X0))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(l2_pcs_0 X0) \Rightarrow ((v12_pcs_0 X0) \Rightarrow (X0 = g2_pcs_0 (u1_struct_0 \\ X0) (u1_orders_2 X0) (u1_pcs_0 X0))) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ X2 (u1_struct_0 (k25_pcs_0 X0 X1))) \Rightarrow (\forall X3.(m1_subset_1 \\ X3 (u1_struct_0 (k25_pcs_0 X0 X1))) \Rightarrow ((r1_pcs_0 (k25_pcs_0 X0 X1) \\ X2 X3) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5. \\ (m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (((X4 \in X2) \wedge (X5 \in X3)) \Rightarrow (r1_pcs_0 \\ X0 X4 X5))))))) \end{aligned}$$