

t26_pcs_0 (TMHyB- heyr3wZakHeWGApSHbTJhAFRyZFuxg)

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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 $k19_pcs_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $l1_pcs_0 : \iota \Rightarrow o$ be given. Let $v12_pcs_0 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_pcs_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4_tarski X0 X1 \in k2_zfmisc_1 (k1_tarski X2) X3) \Leftrightarrow ((X0 = X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(l2_pcs_0 X0) \Rightarrow ((v12_pcs_0 (k19_pcs_0 X0 X1)) \wedge (l2_pcs_0 (k19_pcs_0 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (4)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 X0 X1 X2) \Leftrightarrow (k4_tarski X1 X2 \in u1_orders_2 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.\forall X2.((v12_pcs_0 \\ & X2) \wedge (l2_pcs_0 X2)) \Rightarrow ((X2 = k19_pcs_0 X0 X1) \Leftrightarrow ((u1_struct_0 X2 = k2_xboole_0 \\ & (k1_tarski X1) (u1_struct_0 X0)) \wedge ((u1_orders_2 X2 = k2_xboole_0 \\ & (k2_zfmisc_1 (k1_tarski X1) (u1_struct_0 X2)) (u1_orders_2 X0)) \wedge \\ & (u1_pcs_0 X2 = k2_xboole_0 (k2_xboole_0 (k2_zfmisc_1 (k1_tarski \\ & X1) (u1_struct_0 X2)) (k2_zfmisc_1 (u1_struct_0 X2) (k1_tarski \\ & X1))) (u1_pcs_0 X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l2_pcs_0 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k19_pcs_0 X0 X1))) \Rightarrow \\ & (\forall X5.(m1_subset_1 X5 (u1_struct_0 (k19_pcs_0 X0 X1))) \Rightarrow \\ & (((X2 = X4) \wedge ((X3 = X5) \wedge (r1_orders_2 (k19_pcs_0 X0 X1) X4 X5))) \Rightarrow (\\ & (X2 = X1) \vee (r1_orders_2 X0 X2 X3)))))) \end{aligned}$$