

t31_lopclset
(TMF1pshKcTBPJAcVWZG2s89Q6LFiSmcAYzn)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v17_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k7_lopclset : \iota \Rightarrow \iota$ be given. Let $k9_lopclset : \iota \Rightarrow \iota$ be given. Let $k6_lattices : \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_lattices : \iota \Rightarrow \iota$ be given. Let $k7_lattices : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. k4_xboole_0 X0 k1_xboole_0 = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices \\ X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0)))))) \Rightarrow (k3_funct_2 (u1_struct_0 \\ X0) (k9_setfam_1 (k7_lopclset X0)) (k9_lopclset X0) (k5_lattices \\ X0) = k1_xboole_0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices \\ X0) \wedge (l3_lattices X0)))) \Rightarrow (k7_lattices X0 (k5_lattices X0) = k6_lattices \\ X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices \\ X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0) \Rightarrow (k7_subset_1 (k1_zfmisc_1 (u1_struct_0 \\ X0)) (k7_lopclset X0) (k3_funct_2 (u1_struct_0 X0) (k9_setfam_1 \\ (k7_lopclset X0)) (k9_lopclset X0) X1) = k3_funct_2 (u1_struct_0 \\ X0) (k9_setfam_1 (k7_lopclset X0)) (k9_lopclset X0) (k7_lattices \\ X0 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0. (l3_lattices X0) \Rightarrow ((l1_lattices X0) \wedge (l2_lattices X0)) \quad (7)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow (m1_subset_1 (k7_lopclset X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (8)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_lattices X0)) \Rightarrow (m1_subset_1 (k5_lattices X0) (u1_struct_0 X0)) \quad (9)$$

Theorem 1

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow (k3_funct_2 (u1_struct_0 X0) (k9_setfam_1 (k7_lopclset X0)) (k9_lopclset X0) (k6_lattices X0) = k7_lopclset X0)$$