

t16_lopclset (TMarDFStft- typVCRU8RobWX1UWpP_xzgX6rZ)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v19_lattices : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v20_lattices : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_filter_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_lopclset : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((\neg v7_struct_0 X1) \wedge \\ & ((v10_lattices X1) \wedge ((v17_lattices X1) \wedge (l3_lattices X1)))))) \Rightarrow \\ & ((X0 \in k7_lopclset X1) \Leftrightarrow (\exists X2. ((\neg v1_xboole_0 X2) \wedge ((v19_lattices \\ & X2 X1) \wedge ((v20_lattices X2 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X1)))))) \wedge ((X2 = X0) \wedge (v1_filter_0 X2 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices \\ & X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow (r1_tarski (ReplSep (toset (\lambda X2 : \iota. \\ & (\neg v1_xboole_0 X2) \wedge ((v19_lattices X2 X0) \wedge ((v20_lattices X2 X0) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))))) (\lambda X2 : \\ & \iota. (v1_filter_0 X2 X0) \wedge (X1 \in X2)) (\lambda X2 : \iota. X2)) (k7_lopclset \\ & X0))) \end{aligned}$$