

t18_lopclset (TMVNREyzQqTRTVqTiPrbC- QuCh7HnQosur6C)

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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 $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_lopclset : \iota \Rightarrow \iota$ be given. Let $v1_filter_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((\neg v7_struct_0 X1) \wedge \\
& ((v10_lattices X1) \wedge ((v17_lattices X1) \wedge (l3_lattices X1)))))) \Rightarrow \\
& (\forall X2. (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow ((X0 \in k1_funct_1 \\
& (k8_lopclset X1) X2) \Leftrightarrow (\exists X3. ((\neg v1_xboole_0 X3) \wedge ((v19_lattices \\
& X3 X1) \wedge ((v20_lattices X3 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
& X1)))))) \wedge ((X3 = X0) \wedge ((v1_filter_0 X3 X1) \wedge (X2 \in X3))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices \\
& X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\
& X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. ((\neg v1_xboole_0 X2) \wedge ((v19_lattices \\
& X2 X0) \wedge ((v20_lattices X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
& X0)))))) \Rightarrow ((X2 \in k1_funct_1 (k8_lopclset X0) X1) \Leftrightarrow ((v1_filter_0 \\
& X2 X0) \wedge (X1 \in X2))))))
\end{aligned}$$