

t62_filter_2

(TMXi71NYFENhRFeKN1Q6kZY3ANAZ1Xnm7Pa)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ 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 $r3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_filter_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices \\
 & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r3_lattices X0 X1 X2) \Rightarrow (k9_filter_2 \\
 & \quad X0 X1 X2 = ReplSep (toset (\lambda X3 : \iota. m1_subset_1 X3 (u1_struct_0 \\
 & \quad X0))) (\lambda X3 : \iota. (r3_lattices X0 X1 X3) \wedge (r3_lattices X0 X3 X2)) \\
 & \quad (\lambda X3 : \iota. X3))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices \\
 & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\
 & (u1_struct_0 X0)) \Rightarrow ((r3_lattices X0 X1 X2) \Rightarrow ((X3 \in k9_filter_2 X0 \\
 & \quad X1 X2) \Leftrightarrow ((r3_lattices X0 X1 X3) \wedge (r3_lattices X0 X3 X2))))))
 \end{aligned}$$