

l4_lattices (TM- MqPGtBH13M3hWWtgobLaRCBEcfVbYaof5)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $g3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $u2_lattices : \iota \Rightarrow \iota$ be given. Let $u1_lattices : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 \\ & (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X3.\forall X4.\forall X5. \\ & (g3_lattices X0 X1 X2 = g3_lattices X3 X4 X5) \Rightarrow ((X0 = X3) \wedge ((X1 = X4) \wedge \\ & (X2 = X5)))) \end{aligned} \quad (2)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 \\ & (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow ((v3_lattices (g3_lattices X0 X1 \\ & X2)) \wedge (l3_lattices (g3_lattices X0 X1 X2))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.(l3_lattices\ X0) \Rightarrow ((v3_lattices\ X0) \Rightarrow (X0 = g3_lattices\ (u1_struct_0\ X0)\ (u2_lattices\ X0)\ (u1_lattices\ X0))) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ (k2_zfmisc_1\ (k1_zfmisc_1\ k1_xboole_0)\ (k1_zfmisc_1\ k1_xboole_0))\ (k1_zfmisc_1\ k1_xboole_0)) \wedge \\ & (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_zfmisc_1\ (k1_zfmisc_1\ k1_xboole_0)\ (k1_zfmisc_1\ k1_xboole_0))\ (k1_zfmisc_1\ k1_xboole_0)))))) \Rightarrow \\ & (\forall X1.((v1_funct_1\ X1) \wedge ((v1_funct_2\ X1\ (k2_zfmisc_1\ (k1_zfmisc_1\ k1_xboole_0)\ (k1_zfmisc_1\ k1_xboole_0))\ (k1_zfmisc_1\ k1_xboole_0)) \wedge \\ & (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_zfmisc_1\ (k1_zfmisc_1\ k1_xboole_0)\ (k1_zfmisc_1\ k1_xboole_0))\ (k1_zfmisc_1\ k1_xboole_0)))))) \Rightarrow \\ & (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ (g3_lattices\ (k1_zfmisc_1\ k1_xboole_0)\ X0\ X1))) \Rightarrow (\forall X3.(m1_subset_1\ X3\ (u1_struct_0\ (g3_lattices\ (k1_zfmisc_1\ k1_xboole_0)\ X0\ X1))) \Rightarrow (X2 = X3)))) \end{aligned}$$