

l65_lattice5

(TMRnhNoepnmjFTknDZrVAGv8iuN4vhvhsBv)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v1_yellow_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_lattice5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_lattice5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_lattice5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k7_lattice5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow ((X0 \neq k1_xboole_0) \Rightarrow (k1_xboole_0 \in X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (r1_ordinal1 (k1_ordinal1 X0) X1))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v3_orders_2 X1) \wedge \\ & ((v4_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v1_lattice3 X1) \wedge ((v2_lattice3 \\ & X1) \wedge ((v1_yellow_0 X1) \wedge (l1_orders_2 X1))))))) \Rightarrow (\forall X2.(\\ & (v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) (u1_struct_0 \\ & X1)) \wedge ((v1_lattice5 X2 X0 X1) \wedge ((v2_lattice5 X2 X0 X1) \wedge ((v3_lattice5 \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0) (u1_struct_0 X1)))))))))) \Rightarrow (k7_lattice5 X0 X1 X2 \neq k1_xboole_0))) \quad (3) \end{aligned}$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(((v3_orders_2 \\ & X1)\wedge((v4_orders_2 X1)\wedge((v5_orders_2 X1)\wedge((v1_lattice3 X1)\wedge \\ & ((v2_lattice3 X1)\wedge((v1_yellow_0 X1)\wedge(l1_orders_2 X1))))))\wedge \\ & ((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) (u1_struct_0 \\ & X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0) (u1_struct_0 X1))))))))\Rightarrow(v1_card_1 (k7_lattice5 X0 X1 X2)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(v3_ordinal1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_card_1 X0)\Rightarrow(v3_ordinal1 X0) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v3_orders_2 X1)\wedge \\ & ((v4_orders_2 X1)\wedge((v5_orders_2 X1)\wedge((v1_lattice3 X1)\wedge((v2_lattice3 \\ & X1)\wedge((v1_yellow_0 X1)\wedge(l1_orders_2 X1))))))\Rightarrow(\forall X2.(\\ & (v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) (u1_struct_0 \\ & X1))\wedge((v1_lattice5 X2 X0 X1)\wedge((v2_lattice5 X2 X0 X1)\wedge((v3_lattice5 \\ & X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0) (u1_struct_0 X1))))))))\Rightarrow(r1_ordinal1 (k1_ordinal1 k1_xboole_0) \\ & (k7_lattice5 X0 X1 X2)))) \end{aligned}$$