

t44_knaster

(TMVJvMvu3H4CBcjPkEgLyB1C2Gdu2ohxJCw)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v4_lattice3 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v14_quantal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_knaster : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_lattices : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $r1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_abian : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_knaster : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k6_knaster : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_lattices : \iota \Rightarrow o$ be given. Let $v8_lattices : \iota \Rightarrow o$ be given. Let $v9_lattices : \iota \Rightarrow o$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $v7_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v5_lattices X0) \wedge (l2_lattices \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (((r1_lattices X0 X1 X2) \wedge (r1_lattices X0 X2 \\ & X3)) \Rightarrow (r1_lattices X0 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v4_lattice3 \\ & X0) \wedge (l3_lattices X0)))) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v14_quantal1 X1 X0) \wedge \\ & m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\ & X0)))))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r2_abian \\ & (u1_struct_0 X0) X2 X1) \Rightarrow ((r3_lattices X0 (k9_knaster X0 X1) X2) \wedge \\ & (r3_lattices X0 X2 (k10_knaster X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v4_lattice3 \\
& X0) \wedge (l3_lattices X0)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 \\
& X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v14_quantal1 X1 X0) \wedge (\\
& m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& X0)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\neg(\\
& r3_lattices X0 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) X1 \\
& X2) X2) \wedge (\forall X3.(v3_ordinal1 X3) \Rightarrow (\neg(r1_ordinal1 (k1_card_1 \\
& X3) (k1_card_1 (u1_struct_0 X0))) \wedge (r2_abian (u1_struct_0 X0) \\
& (k6_knaster X0 X1 X2 X3) X1))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v4_lattice3 \\
& X0) \wedge (l3_lattices X0)))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 \\
& X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v14_quantal1 X1 X0) \wedge (\\
& m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& X0)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r3_lattices \\
& X0 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) X1 X2) X2) \Rightarrow (\forall X3. \\
& (v3_ordinal1 X3) \Rightarrow (r3_lattices X0 (k6_knaster X0 X1 X2 X3) X2))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v6_lattices \\
& X0) \wedge ((v8_lattices X0) \wedge ((v9_lattices X0) \wedge (l3_lattices X0)))) \wedge \\
& ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\
& X0)))) \Rightarrow ((r3_lattices X0 X1 X2) \Leftrightarrow (r1_lattices X0 X1 X2))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. (l3_lattices X0) \Rightarrow ((l1_lattices X0) \wedge (l2_lattices X0)) \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge \\
& ((v4_lattice3 X0) \wedge (l3_lattices X0)))) \wedge ((v1_funct_1 X1) \wedge ((v1_funct_2 \\
& X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge ((v14_quantal1 X1 X0) \wedge (\\
& m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 \\
& X0)))))) \Rightarrow (m1_subset_1 (k9_knaster X0 X1) (u1_struct_0 X0))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\
& X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \wedge (((v1_funct_1 X1) \wedge \\
& ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \wedge \\
& ((m1_subset_1 X2 (u1_struct_0 X0)) \wedge (v3_ordinal1 X3))) \Rightarrow (m1_subset_1 \\
& (k6_knaster X0 X1 X2 X3) (u1_struct_0 X0))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned} \forall X0. (&l3_lattices\ X0) \Rightarrow (((\neg v2_struct_0\ X0) \wedge (v10_lattices \\ &X0)) \Rightarrow ((\neg v2_struct_0\ X0) \wedge ((v4_lattices\ X0) \wedge ((v5_lattices\ X0) \wedge \\ &((v6_lattices\ X0) \wedge ((v7_lattices\ X0) \wedge ((v8_lattices\ X0) \wedge (v9_lattices \\ &X0)))))))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0\ X0) \wedge ((v10_lattices\ X0) \wedge ((v4_lattice3 \\ &X0) \wedge (l3_lattices\ X0)))) \Rightarrow (\forall X1. ((v1_funct_1\ X1) \wedge ((v1_funct_2 \\ &X1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)) \wedge ((v14_quantal1\ X1\ X0) \wedge (\\ &m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0 \\ &X0)))))) \Rightarrow (\forall X2. (m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow ((r3_lattices \\ &X0\ (k3_funct_2\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)\ X1\ X2)\ X2) \Rightarrow (r3_lattices \\ &X0\ (k9_knaster\ X0\ X1\ X2)))) \end{aligned}$$