

t25_scmfsa8c
(TMPB4qfaT9JUutcRLsMJJaKgqn4NJ2rJXLrE)

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Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa8b : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_scmfsa8b : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0)))) \Rightarrow (k2_afinsq_1 X0 = k9_xtuple_0 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 (u1_compos_1 k1_scmfsa_2)) \wedge (v1_funct_1 X1) \wedge (v1_finset_1 X1) \wedge (v1_afinsq_1 X1))))))) \Rightarrow (\\ & \quad \forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2)) \wedge (v1_funct_1 X2) \wedge (v1_finset_1 X2) \wedge (v1_afinsq_1 X2))))))) \Rightarrow (\\ & (k6_numbers \in k9_xtuple_0 (k1_scmfsa8b X0 X1 X2)) \wedge ((np_1 \in k9_xtuple_0 (k1_scmfsa8b X0 X1 X2)) \wedge ((k6_numbers \in k9_xtuple_0 (k2_scmfsa8b X0 X1 X2)) \wedge (np_1 \in k9_xtuple_0 (k2_scmfsa8b X0 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((v1_ami_2 X0)\wedge(m1_subset_1 \\
& X0 (u1_struct_0 k1_scmfsa_2)))\wedge(((\neg v1_xboole_0 X1)\wedge((v1_relat_1 \\
& X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v5_relat_1 X1 (u1_compos_1 \\
& k1_scmfsa_2))\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_afinsq_1 \\
& X1))))))\wedge((\neg v1_xboole_0 X2)\wedge((v1_relat_1 X2)\wedge((v4_relat_1 \\
& X2 k5_numbers)\wedge((v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2))\wedge(\\
& (v1_funct_1 X2)\wedge((v1_finset_1 X2)\wedge(v1_afinsq_1 X2)))))))))\Rightarrow \\
& ((\neg v1_xboole_0 (k2_scmfsa8b X0 X1 X2))\wedge((v1_relat_1 (k2_scmfsa8b \\
& X0 X1 X2))\wedge((v4_relat_1 (k2_scmfsa8b X0 X1 X2) k5_numbers)\wedge((v5_relat_1 \\
& (k2_scmfsa8b X0 X1 X2) (u1_compos_1 k1_scmfsa_2))\wedge((v1_funct_1 \\
& (k2_scmfsa8b X0 X1 X2))\wedge((v1_finset_1 (k2_scmfsa8b X0 X1 X2))\wedge \\
& (v1_afinsq_1 (k2_scmfsa8b X0 X1 X2))))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((v1_ami_2 X0)\wedge(m1_subset_1 \\
& X0 (u1_struct_0 k1_scmfsa_2)))\wedge(((\neg v1_xboole_0 X1)\wedge((v1_relat_1 \\
& X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v5_relat_1 X1 (u1_compos_1 \\
& k1_scmfsa_2))\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_afinsq_1 \\
& X1))))))\wedge((\neg v1_xboole_0 X2)\wedge((v1_relat_1 X2)\wedge((v4_relat_1 \\
& X2 k5_numbers)\wedge((v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2))\wedge(\\
& (v1_funct_1 X2)\wedge((v1_finset_1 X2)\wedge(v1_afinsq_1 X2)))))))))\Rightarrow \\
& ((\neg v1_xboole_0 (k1_scmfsa8b X0 X1 X2))\wedge((v1_relat_1 (k1_scmfsa8b \\
& X0 X1 X2))\wedge((v4_relat_1 (k1_scmfsa8b X0 X1 X2) k5_numbers)\wedge((v5_relat_1 \\
& (k1_scmfsa8b X0 X1 X2) (u1_compos_1 k1_scmfsa_2))\wedge((v1_funct_1 \\
& (k1_scmfsa8b X0 X1 X2))\wedge((v1_finset_1 (k1_scmfsa8b X0 X1 X2))\wedge \\
& (v1_afinsq_1 (k1_scmfsa8b X0 X1 X2))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 \\
& X0)\wedge((v1_finset_1 X0)\wedge(v1_afinsq_1 X0))))\Rightarrow((v1_relat_1 X0)\wedge \\
& ((v5_ordinal1 X0)\wedge(v1_funct_1 X0)))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0)\wedge(m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2)))\Rightarrow \\
& (\forall X1.((\neg v1_xboole_0 X1)\wedge((v1_relat_1 X1)\wedge((v4_relat_1 \\
& X1 k5_numbers)\wedge((v5_relat_1 X1 (u1_compos_1 k1_scmfsa_2))\wedge(\\
& (v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_afinsq_1 X1))))))\Rightarrow(\\
& \forall X2.((\neg v1_xboole_0 X2)\wedge((v1_relat_1 X2)\wedge((v4_relat_1 \\
& X2 k5_numbers)\wedge((v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2))\wedge(\\
& (v1_funct_1 X2)\wedge((v1_finset_1 X2)\wedge(v1_afinsq_1 X2))))))\Rightarrow(\\
& (k6_numbers \in k2_afinsq_1 (k1_scmfsa8b X0 X1 X2))\wedge((np_1 \in k2_afinsq_1 \\
& (k1_scmfsa8b X0 X1 X2))\wedge((k6_numbers \in k2_afinsq_1 (k2_scmfsa8b \\
& X0 X1 X2))\wedge((np_1 \in k2_afinsq_1 (k2_scmfsa8b X0 X1 X2))))))
\end{aligned}$$