

t66_scmfsa8c (TMJC-
MaK7eqn8S9pHVLRtouiD3h8WbyucT2M)

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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 $k1_scmfsa_2 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v5_funct_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_3 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $v1_scmfsa7b : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scmfsa_2 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_scmfsa7b : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume

the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\
& X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_partfun1 \\
& X0 k5_numbers)))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 \\
& X1 (u1_struct_0 k1_scmfsa_2)) \wedge ((v1_funct_1 X1) \wedge ((v5_funct_1 \\
& X1 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge (v1_partfun1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))))) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 \\
& k1_scmfsa_2)) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge (v1_afinsq_1 \\
& X2)))))) \Rightarrow (\forall X3.((v1_ami_2 X3) \wedge (m1_subset_1 X3 (u1_struct_0 \\
& k1_scmfsa_2))) \Rightarrow ((\neg r4_scmfsa7b X2 X3) \Rightarrow (\forall X4.(m2_subset_1 \\
& X4 k1_numbers k5_numbers) \Rightarrow ((\forall X5.(m2_subset_1 X5 k1_numbers \\
& k5_numbers) \Rightarrow ((\neg r1_xxreal_0 X4 X5) \Rightarrow (k5_memstr_0 np_3 k1_scmfsa_2 \\
& (k5_extpro_1 np_3 k1_scmfsa_2 (k1_funct_4 X0 X2) (k8_memstr_0 \\
& np_3 k1_scmfsa_2 X1) X5) \in k2_afinsq_1 X2))) \Rightarrow (\forall X5.(m2_subset_1 \\
& X5 k1_numbers k5_numbers) \Rightarrow ((r1_xxreal_0 X5 X4) \Rightarrow (k1_funct_1 (\\
& k5_extpro_1 np_3 k1_scmfsa_2 (k1_funct_4 X0 X2) (k8_memstr_0 \\
& np_3 k1_scmfsa_2 X1) X5) X3 = k1_funct_1 X1 X3)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{2}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_ami_2 (k4_scmfsa_2 X0)) \wedge (m1_subset_1 \\
(k4_scmfsa_2 X0) (u1_struct_0 k1_scmfsa_2))) \tag{5}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\
X0 (u1_compos_1 k1_scmfsa_2)) \wedge (v1_funct_1 X0)))) \Rightarrow ((v1_scmfsa7b \\
X0) \Leftrightarrow (\neg r4_scmfsa7b X0 (k4_scmfsa_2 k6_numbers))) \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\
& X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_partfun1 \\
& X0 k5_numbers)))))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 \\
& X1 (u1_struct_0 k1_scmfsa_2)) \wedge ((v1_funct_1 X1) \wedge ((v5_funct_1 \\
& X1 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge (v1_partfun1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))))) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 \\
& k1_scmfsa_2)) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 X2) \wedge ((v1_afinsq_1 \\
& X2) \wedge (v1_scmfsa7b X2)))))))))) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\
& k5_numbers) \Rightarrow ((\forall X4.(m2_subset_1 X4 k1_numbers k5_numbers) \Rightarrow \\
& ((\neg r1_xxreal_0 X3 X4) \Rightarrow (k5_memstr_0 np_3 k1_scmfsa_2 (k5_extpro_1 \\
& np_3 k1_scmfsa_2 (k1_funct_4 X0 X2) (k8_memstr_0 np_3 k1_scmfsa_2 \\
& X1) X4) \in k2_afinsq_1 X2))) \Rightarrow (\forall X4.(m2_subset_1 X4 k1_numbers \\
& k5_numbers) \Rightarrow ((r1_xxreal_0 X4 X3) \Rightarrow (k1_funct_1 (k5_extpro_1 np_3 \\
& k1_scmfsa_2 (k1_funct_4 X0 X2) (k8_memstr_0 np_3 k1_scmfsa_2 \\
& X1) X4) (k4_scmfsa_2 k6_numbers) = k1_funct_1 X1 (k4_scmfsa_2 k6_numbers)))))))))
\end{aligned}$$