

t1_sf_mastr
(TMFNqWA3LFphXV9e4oXe6d7nf1o1xcP4eDr)

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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 $k1_scmf_sa_2 : \iota$ be given. Let $k6_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_ami_3 : \iota$ be given. Let $k2_ami_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 \\ & X2) \wedge (v1_finseq_1 X2))) \Rightarrow ((X2 = k10_finseq_1 X0 X1) \Leftrightarrow ((k3_finseq_1 \\ & X2 = np_2) \wedge ((k1_funct_1 X2 np_1 = X0) \wedge (k1_funct_1 X2 np_2 = X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & (k3_xtuple_0 X0 X1 X2 = k3_xtuple_0 X3 X4 X5) \Rightarrow ((X0 = X3) \wedge ((X1 = X4) \wedge \\ & (X2 = X5))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 (k10_finseq_1 X0 X1)) \wedge (v1_funct_1 (k10_finseq_1 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. v1_finseq_1 (k10_finseq_1 X0 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\ & k1_scmf_sa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\ & k1_scmf_sa_2)))) \Rightarrow (m1_subset_1 (k6_scmf_sa_2 X0 X1) (u1_compos_1 \\ & k1_scmf_sa_2)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& \quad (\forall X2.(m1_subset_1 X2 (u1_compos_1 k1_scmf_sa_2)) \Rightarrow ((X2 = \\
& \quad k6_scmf_sa_2 X0 X1) \Leftrightarrow (\exists X3.((v1_ami_2 X3) \wedge (m1_subset_1 X3 \\
& \quad (u1_struct_0 k1_ami_3)))) \wedge (\exists X4.((v1_ami_2 X4) \wedge (m1_subset_1 \\
& \quad X4 (u1_struct_0 k1_ami_3)))) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k2_ami_3 \\
& \quad X3 X4))))))))) \tag{6}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_ami_3))) \Rightarrow \\
& (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_ami_3))) \Rightarrow \\
& \quad (k2_ami_3 X0 X1 = k3_xtuple_0 np_1 k1_xboole_0 (k10_finseq_1 X0 \\
& \quad X1))) \tag{7}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& (\forall X2.((v1_ami_2 X2) \wedge (m1_subset_1 X2 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& (\forall X3.((v1_ami_2 X3) \wedge (m1_subset_1 X3 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\
& ((k6_scmf_sa_2 X0 X1 = k6_scmf_sa_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))))))
\end{aligned}$$