

t43_scmfsa_2

(TMH2F5AMtdGbvUXECdpxThotxW8x8Lr3JnA)

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Let $m1_scmfsa_2 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ 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 $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmfsa_2)) \wedge \\ & ((v1_funct_1 X0) \wedge ((v5_funct_1 X0 (k2_memstr_0 np_3 k1_scmfsa_2)) \wedge \\ & (v1_partfun1 X0 (u1_struct_0 k1_scmfsa_2)))))) \Rightarrow (\forall X1. \\ & ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (X1 \in k1_relset_1 (u1_struct_0 k1_scmfsa_2) X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\exists X0. (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2)) \wedge (v1_ami_2 X0) \quad (4)$$

Assume the following.

$$\forall X0. (m1_scmfsa_2 X0) \Rightarrow (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (v1_partfun1 X1 X0) \Leftrightarrow (k1_relset_1 X0 X1 = X0) \quad (6)$$

Theorem 1

$$\forall X0.(m1_scmfsa_2\ X0) \Rightarrow (\forall X1.((v1_relat_1\ X1) \wedge ((v4_relat_1\ X1\ (u1_struct_0\ k1_scmfsa_2)) \wedge ((v1_funct_1\ X1) \wedge (v5_funct_1\ X1\ (k2_memstr_0\ np_3\ k1_scmfsa_2)) \wedge (v1_partfun1\ X1\ (u1_struct_0\ k1_scmfsa_2)))))) \Rightarrow (X0 \in k1_relset_1\ (u1_struct_0\ k1_scmfsa_2)\ X1))$$