t15_memstr_0 (TMTH-fJVq4fv3JmJmPwZhUJEqcEdC7hwJZzd)

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Let $v1\_setfam\_1 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $v5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_setfam\_1\ X0) \wedge (((\neg v2\_struct\_0\ X1) \wedge ((v2\_memstr\_0\ X1\ X0) \wedge ((v3\_memstr\_0\ X1\ X0) \wedge (l1\_memstr\_0\ X1\ X0)))) \wedge (v7\_ordinal1\ X2))) \Rightarrow ((\neg v1\_xboole\_0\ (k7\_memstr\_0\ X0\ X1\ X2)) \wedge ((v1\_relat\_1\ (k7\_memstr\_0\ X0\ X1\ X2)) \wedge ((v4\_relat\_1\ (k7\_memstr\_0\ X0\ X1\ X2)\ (u1\_struct\_0\ X1)) \wedge ((v1\_funct\_1\ (k7\_memstr\_0\ X0\ X1\ X2)) \wedge ((v5\_funct\_1\ (k7\_memstr\_0\ X0\ X1\ X2)\ (k2\_memstr\_0\ X0\ X1)) \wedge (v5\_memstr\_0\ (k7\_memstr\_0\ X0\ X1\ X2)\ X0\ X1\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_setfam\_1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_memstr\_0\ X1\ X0) \wedge ((v3\_memstr\_0\ X1\ X0) \wedge (l1\_memstr\_0\ X1\ X0)))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.((v1\_relat\_1\ X3) \wedge ((v4\_relat\_1\ X3\ (u1\_struct\_0\ X1)) \wedge ((v1\_funct\_1\ X3) \wedge (v5\_funct\_1\ X3\ (k2\_memstr\_0\ X0\ X1))))) \Rightarrow ((v5\_memstr\_0\ X3\ X0\ X1\ X2) \Leftrightarrow ((k4\_struct\_0\ X1 \in k9\_xtuple\_0\ X3) \wedge (k5\_memstr\_0\ X0\ X1\ X3 = X2)))))) \tag{2}$$

Theorem 1

$$\forall X0.(\neg v1\_setfam\_1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_memstr\_0\ X1\ X0) \wedge ((v3\_memstr\_0\ X1\ X0) \wedge (l1\_memstr\_0\ X1\ X0)))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (k4\_struct\_0\ X1 \in k9\_xtuple\_0\ (k7\_memstr\_0\ X0\ X1\ X2))))$$