t50_memstr_0 (TMT9bMcsGBWbHeYpEUb3zmqyRZXCrdPH6MN)

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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 $v1\_relat\_1 : \iota \Rightarrow o$ 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 $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_setfam\_1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_memstr\_0\ X1\ X0) \wedge ((v3\_memstr\_0\ X1\ X0) \wedge (l1\_memstr\_0\ X1\ X0)))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.((v1\_relat\_1\ X3) \wedge ((v4\_relat\_1\ X3\ (u1\_struct\_0\ X1)) \wedge ((v1\_funct\_1\ X3) \wedge (v5\_funct\_1\ X3\ (k2\_memstr\_0\ X0\ X1))))) \Rightarrow ((v5\_memstr\_0\ X3\ X0\ X1\ X2) \Leftrightarrow (r1\_tarski\ (k7\_memstr\_0\ X0\ X1\ X2)\ X3)))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_setfam\_1\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_memstr\_0\ X1\ X0) \wedge ((v3\_memstr\_0\ X1\ X0) \wedge (l1\_memstr\_0\ X1\ X0)))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.((v1\_relat\_1\ X3) \wedge ((v4\_relat\_1\ X3\ (u1\_struct\_0\ X1)) \wedge ((v1\_funct\_1\ X3) \wedge ((v5\_funct\_1\ X3\ (k2\_memstr\_0\ X0\ X1)) \wedge (v5\_memstr\_0\ X3\ X0\ X1\ X2))))) \Rightarrow (\forall X4.((v1\_relat\_1\ X4) \wedge ((v4\_relat\_1\ X4\ (u1\_struct\_0\ X1)) \wedge ((v1\_funct\_1\ X4) \wedge (v5\_funct\_1\ X4\ (k2\_memstr\_0\ X0\ X1))))) \Rightarrow ((r1\_tarski\ X3\ X4) \Rightarrow (v5\_memstr\_0\ X4\ X0\ X1\ X2)))))) \tag{2}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{3}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_setfam\_1\ X0)\wedge(((\neg v2\_struct\_0\ X1)\wedge((v2\_memstr\_0\ X1\ X0)\wedge((v3\_memstr\_0\ X1\ X0)\wedge(l1\_memstr\_0\ X1\ X0))))\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ X2)\wedge(v5\_funct\_1\ X2\ (k2\_memstr\_0\ X0\ X1)))))))\Rightarrow((v1\_relat\_1\ (k8\_memstr\_0\ X0\ X1\ X2))\wedge((v4\_relat\_1\ (k8\_memstr\_0\ X0\ X1\ X2)\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ (k8\_memstr\_0\ X0\ X1\ X2))\wedge((v5\_funct\_1\ (k8\_memstr\_0\ X0\ X1\ X2)\ (k2\_memstr\_0\ X0\ X1))\wedge(v5\_memstr\_0\ (k8\_memstr\_0\ X0\ X1\ X2)\ X0\ X1\ k6\_numbers)))))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{6}$$

Theorem 1

$$\forall X0.(\neg v1\_setfam\_1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_memstr\_0\ X1\ X0)\wedge((v3\_memstr\_0\ X1\ X0)\wedge(l1\_memstr\_0\ X1\ X0))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ X2)\wedge(v5\_funct\_1\ X2\ (k2\_memstr\_0\ X0\ X1)))))\Rightarrow(\forall X3.((v1\_relat\_1\ X3)\wedge((v4\_relat\_1\ X3\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ X3)\wedge(v5\_funct\_1\ X3\ (k2\_memstr\_0\ X0\ X1)))))\Rightarrow((r1\_tarski\ (k8\_memstr\_0\ X0\ X1\ X2)\ X3)\Rightarrow(r1\_tarski\ (k7\_memstr\_0\ X0\ X1\ k6\_numbers)\ X3)))))$$