l9_scmfsa6c (TMJkknqbKFM6Ui5tXizCyR2eGTb341HBxr6)

October 27, 2020

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 $k5\_numbers : \iota$ 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 $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_afinsq\_1 : \iota \Rightarrow o$ be given. Let $v1\_scmfsa6b : \iota \Rightarrow o$ be given. Let $v7\_amistd\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_3 : \iota$ 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 $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_scmfsa\_m : \iota \Rightarrow \iota$ be given. Let $k1\_scmfsa6b : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $np\_\_1 : \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)) \wedge ((v1\_funct\_1\ X0) \wedge ((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2)) \wedge (v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))))) \Rightarrow ((k1\_funct\_1\ X0\ (k4\_scmfsa\_2\ k6\_numbers) = np\_\_1) \Rightarrow (k6\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2\ (k1\_scmfsa\_m\ X0) = k6\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)) \wedge ((v1\_funct\_1\ X0) \wedge ((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2)) \wedge (v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ k1\_scmfsa\_2)) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_partfun1\ X1\ k5\_numbers)))))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ k5\_numbers) \wedge ((v5\_relat\_1\ X2\ (u1\_compos\_1\ k1\_scmfsa\_2)) \wedge ((\neg v1\_xboole\_0\ X2) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_finset\_1\ X2) \wedge ((v1\_afinsq\_1\ X2) \wedge ((v7\_amistd\_1\ X2\ np\_\_3\ k1\_scmfsa\_2) \wedge (v1\_scmfsa6b\ X2)))))))) \Rightarrow (k1\_funct\_1\ (k1\_scmfsa6b\ X2\ X0\ X1)\ (k4\_scmfsa\_2\ k6\_numbers) = np\_\_1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v5\_relat\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge((\neg v1\_xboole\_0\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_afinsq\_1\ X0)))))))\wedge(((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X1)\wedge((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2))\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))))\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ k5\_numbers)\wedge((v5\_relat\_1\ X2\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X2)\wedge(v1\_partfun1\ X2\ k5\_numbers)))))))\Rightarrow((v1\_relat\_1\ (k1\_scmfsa6b\ X0\ X1\ X2))\wedge((v4\_relat\_1\ (k1\_scmfsa6b\ X0\ X1\ X2)\ (u1\_struct\_0\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ (k1\_scmfsa6b\ X0\ X1\ X2))\wedge((v5\_funct\_1\ (k1\_scmfsa6b\ X0\ X1\ X2)\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2))\wedge(v1\_partfun1\ (k1\_scmfsa6b\ X0\ X1\ X2)\ (u1\_struct\_0\ k1\_scmfsa\_2))))))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v5\_relat\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge((v1\_afinsq\_1\ X0)\wedge((v1\_scmfsa6b\ X0)\wedge(v7\_amistd\_1\ X0\ np\_\_3\ k1\_scmfsa\_2)))))))))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X1)\wedge((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2))\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ k5\_numbers)\wedge((v5\_relat\_1\ X2\ (u1\_compos\_1\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X2)\wedge(v1\_partfun1\ X2\ k5\_numbers)))))\Rightarrow(k6\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2\ (k1\_scmfsa\_m\ (k1\_scmfsa6b\ X0\ X1\ X2))=k6\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2\ (k1\_scmfsa6b\ X0\ X1\ X2))))$$