t39_scmpds_5 (TMRXGxu6DXsiECKd18poFBcHuGsjczkj5jj)

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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 $k1\_scmpds\_2 : \iota$ 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 $np\_\_2 : \iota$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_scmpds\_4 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_6 : \iota$ be given. Let $np\_\_14 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmpds\_2)) \Rightarrow (\forall X1.\ ((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X1) \wedge ((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2)) \wedge (v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2)))))) \Rightarrow (\forall X2.\ ((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ (u1\_struct\_0\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X2) \wedge ((v5\_funct\_1\ X2\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2)) \wedge (v1\_partfun1\ X2\ (u1\_struct\_0\ k1\_scmpds\_2)))))) \Rightarrow ((k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X1 = k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X2) \Rightarrow ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmpds\_2)\ X0 = np\_\_3) \vee (k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ X0\ X1) = k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ X0\ X2)))))) \tag{1}$$

Assume the following.

$$r1\_xxreal\_0\ np\_\_3\ np\_\_6 \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmpds\_2)) \Rightarrow ((v4\_scmpds\_4\ X0) \Leftrightarrow ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmpds\_2)\ X0 = np\_\_2) \vee ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmpds\_2)\ X0 \neq np\_\_14) \wedge (\neg r1\_xxreal\_0\ (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmpds\_2)\ X0)\ np\_\_6)))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))\wedge((v1\_funct\_1\ X0)\wedge((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2))\wedge(v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))))))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2))\wedge((v1\_funct\_1\ X1)\wedge((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2))\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2))))))\Rightarrow(\forall X2.((v4\_scmpds\_4\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_compos\_1\ k1\_scmpds\_2)))\Rightarrow((k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X0 = k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X1)\Rightarrow(k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ X2\ X0) = k6\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ X2\ X1)))))$$