t13_scmpds_9 (TMR8oVFDBu4NcDGwGNJc9DwAbSMecpMvecW)

October 27, 2020

Let $v1\_ami\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_scmpds\_2 : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $k1\_amistd\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k15\_scmpds\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_scmpds\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$

be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X0) \wedge ((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2)) \wedge (v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2)))))) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.(v1\_int\_1\ X2) \Rightarrow (\forall X3.((v1\_ami\_2\ X3) \wedge (m1\_subset\_1\ X3\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow (\forall X4.((v1\_ami\_2\ X4) \wedge (m1\_subset\_1\ X4\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow ((k1\_funct\_1\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ (k15\_scmpds\_2\ X3\ X4\ X1\ X2)\ X0)\ (k4\_struct\_0\ k1\_scmpds\_2) = k4\_card\_1\ (k5\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X0)) \wedge (((k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X3)\ X1 \neq k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X4)\ X2) \Rightarrow (k1\_funct\_1\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ (k15\_scmpds\_2\ X3\ X4\ X1\ X2)\ X0)\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X3)\ X1) = k5\_int\_1\ (k1\_funct\_1\ X0\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X3)\ X1))\ (k1\_funct\_1\ X0\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X4)\ X2)))) \wedge ((k1\_funct\_1\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ (k15\_scmpds\_2\ X3\ X4\ X1\ X2)\ X0)\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X4)\ X2) = k6\_int\_1\ (k1\_funct\_1\ X0\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X3)\ X1))\ (k1\_funct\_1\ X0\ (k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X4)\ X2))) \wedge (\forall X5.((v1\_ami\_2\ X5) \wedge (m1\_subset\_1\ X5\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow (\neg(X5 \neq k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X3)\ X1) \wedge ((X5 \neq k2\_scmpds\_2\ (k1\_funct\_1\ X0\ X4)\ X2) \wedge (k1\_funct\_1\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ (k15\_scmpds\_2\ X3\ X4\ X1\ X2)\ X0)\ X5 \neq k1\_funct\_1\ X0\ X5)))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmpds\_2)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow ((\forall X2.((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ (u1\_struct\_0\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X2) \wedge ((v5\_funct\_1\ X2\ (k2\_memstr\_0\ np\_\_2\ k1\_scmpds\_2)) \wedge (v1\_partfun1\ X2\ (u1\_struct\_0\ k1\_scmpds\_2)))))) \Rightarrow ((k5\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X2 = X1) \Rightarrow (k1\_funct\_1\ (k2\_extpro\_1\ np\_\_2\ k1\_scmpds\_2\ X0\ X2)\ (k4\_struct\_0\ k1\_scmpds\_2) = k1\_ordinal1\ (k5\_memstr\_0\ np\_\_2\ k1\_scmpds\_2\ X2)))) \Rightarrow (k1\_amistd\_1\ np\_\_2\ k1\_scmpds\_2\ X1\ X0 = k1\_tarski\ (k1\_ordinal1\ X1)))) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k4\_card\_1\ X0 = k1\_ordinal1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))) \wedge (((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2))) \wedge ((v1\_int\_1\ X2) \wedge (v1\_int\_1\ X3)))) \Rightarrow (m1\_subset\_1\ (k15\_scmpds\_2\ X0\ X1\ X2\ X3)\ (u1\_compos\_1\ k1\_scmpds\_2)) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{6}$$

Theorem 1

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\forall X3.(v1\_int\_1\ X3) \Rightarrow (\forall X4.(v1\_int\_1\ X4) \Rightarrow (k1\_amistd\_1\ np\_\_2\ k1\_scmpds\_2\ X2\ (k15\_scmpds\_2\ X0\ X1\ X3\ X4) = k1\_tarski\ (k1\_ordinal1\ X2))))))$$