t23_ncfcont2 (TMY-MusUpUyQokeK4EJ5Doo6zDoPznBXWsrg)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_normsp\_0 : \iota \Rightarrow o$ be given. Let $v4\_normsp\_0 : \iota \Rightarrow o$ be given. Let $v2\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v8\_clvect\_1 : \iota \Rightarrow o$ be given. Let $l2\_clvect\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $r5\_ncfcont2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r11\_ncfcont1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_normsp\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18\_complex1 : \iota \Rightarrow \iota$ be given. Let $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v3\_normsp\_0\ X0) \wedge ((v4\_normsp\_0\ X0) \wedge ((v2\_clvect\_1\ X0) \wedge ((v3\_clvect\_1\ X0) \wedge ((v4\_clvect\_1\ X0) \wedge ((v5\_clvect\_1\ X0) \wedge ((v8\_clvect\_1\ X0) \wedge (l2\_clvect\_1\ X0))))))))))) \Rightarrow (\forall X1.\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers)))) \Rightarrow ((r11\_ncfcont1\ X0\ X2\ X1) \Leftrightarrow ((r1\_tarski\ X1\ (k1\_relset\_1\ (u1\_struct\_0\ X0)\ X2)) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ k1\_numbers) \Rightarrow (\neg(X3 \in X1) \wedge ((\neg r1\_xxreal\_0\ X4\ k6\_numbers) \wedge (\forall X5.(m1\_subset\_1\ X5\ k1\_numbers) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X5\ k6\_numbers) \wedge (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(X6 \in X1) \wedge ((\neg r1\_xxreal\_0\ X5\ (k1\_normsp\_0\ X0\ (k5\_algstr\_0\ X0\ X6\ X3))) \wedge (r1\_xxreal\_0\ X4\ (k18\_complex1\ (k9\_real\_1\ (k7\_partfun1\ k1\_numbers\ X2\ X6)\ (k7\_partfun1\ k1\_numbers\ X2\ X3))))))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v3\_normsp\_0\ X1)\wedge((v4\_normsp\_0\ X1)\wedge((v2\_clvect\_1\ X1)\wedge((v3\_clvect\_1\ X1)\wedge((v4\_clvect\_1\ X1)\wedge((v5\_clvect\_1\ X1)\wedge((v8\_clvect\_1\ X1)\wedge(l2\_clvect\_1\ X1))))))))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ k1\_numbers))))\Rightarrow((r5\_ncfcont2\ X0\ X1\ X2)\Leftrightarrow((r1\_tarski\ X0\ (k1\_relset\_1\ (u1\_struct\_0\ X1)\ X2))\wedge(\forall X3.(m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X3\ k6\_numbers)\wedge(\forall X4.(m1\_subset\_1\ X4\ k1\_numbers)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X4\ k6\_numbers)\wedge(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X1))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X1))\Rightarrow(\neg(X5\in X0)\wedge((X6\in X0)\wedge((\neg r1\_xxreal\_0\ X4\ (k1\_normsp\_0\ X1\ (k5\_algstr\_0\ X1\ X5\ X6)))\wedge(r1\_xxreal\_0\ X3\ (k18\_complex1\ (k9\_real\_1\ (k7\_partfun1\ k1\_numbers\ X2\ X5)\ (k7\_partfun1\ k1\_numbers\ X2\ X6))))))))))))))) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v3\_normsp\_0\ X1)\wedge((v4\_normsp\_0\ X1)\wedge((v2\_clvect\_1\ X1)\wedge((v3\_clvect\_1\ X1)\wedge((v4\_clvect\_1\ X1)\wedge((v5\_clvect\_1\ X1)\wedge((v8\_clvect\_1\ X1)\wedge(l2\_clvect\_1\ X1))))))))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ k1\_numbers))))\Rightarrow((r5\_ncfcont2\ X0\ X1\ X2)\Rightarrow(r11\_ncfcont1\ X1\ X2\ X0)))$$