t75_abcmiz_1 (TMWD-ShY7mrnNvCo1hDCPkFYpCuRMeiCJriR)

October 27, 2020

Let $v1\_instalg1 : \iota \Rightarrow o$ be given. Let $v1\_abcmiz\_1 : \iota \Rightarrow o$ be given. Let $v3\_abcmiz\_1 : \iota \Rightarrow o$ be given. Let $l1\_msualg\_1 : \iota \Rightarrow o$ be given. Let $m1\_trees\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $u3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_msafree3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k28\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $k34\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v9\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k36\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $k31\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k33\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge ((v3\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0)))) \Rightarrow (\forall X1.((v2\_abcmiz\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (u4\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_abcmiz\_1\ X2\ X0\ (k13\_abcmiz\_1\ X0)) \Rightarrow (\forall X3.(m1\_abcmiz\_1\ X3\ X0\ (k12\_abcmiz\_1\ X0)) \Rightarrow (\forall X4.(m1\_trees\_4\ X4\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0)))\ (k34\_abcmiz\_1\ X0)) \Rightarrow (\neg(k3\_finseq\_1\ X4 = k3\_finseq\_1\ (k1\_msualg\_1\ X0\ X1)) \wedge (k36\_abcmiz\_1\ X0\ X1\ X4 = k31\_abcmiz\_1\ X0\ (k33\_abcmiz\_1\ X0\ X2\ X3))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge ((v3\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0)))) \Rightarrow (\forall X1.((v2\_abcmiz\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (u4\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_trees\_4\ X2\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0))))\ (k34\_abcmiz\_1\ X0)) \Rightarrow ((k3\_finseq\_1\ X2 = k3\_finseq\_1\ (k1\_msualg\_1\ X0\ X1)) \Rightarrow (m1\_abcmiz\_1\ (k36\_abcmiz\_1\ X0\ X1\ X2)\ X0\ (k2\_msualg\_1\ X0\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m1\_abcmiz\_1\ X1\ X0\ (k12\_abcmiz\_1\ X0))\Rightarrow((v9\_abcmiz\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_abcmiz\_1\ X2\ X0\ (k13\_abcmiz\_1\ X0))\Rightarrow(\forall X3.(m1\_abcmiz\_1\ X3\ X0\ (k12\_abcmiz\_1\ X0))\Rightarrow(X1\neq k31\_abcmiz\_1\ X0\ (k33\_abcmiz\_1\ X0)\ X2\ X3)))))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m1\_trees\_4\ X1\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0))))\ (k34\_abcmiz\_1\ X0))\Rightarrow(\forall X2.((v2\_abcmiz\_1\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (u4\_struct\_0\ X0)))\Rightarrow(((k2\_msualg\_1\ X0\ X2 = k12\_abcmiz\_1\ X0)\wedge(k3\_finseq\_1\ X1 = k3\_finseq\_1\ (k1\_msualg\_1\ X0\ X2)))\Rightarrow((v9\_abcmiz\_1\ (k36\_abcmiz\_1\ X0\ X2\ X1)\ X0)\wedge(m1\_abcmiz\_1\ (k36\_abcmiz\_1\ X0\ X2\ X1)\ X0\ (k12\_abcmiz\_1\ X0))))))$$