t33_abcmiz_a (TMaeFsSWEggsATofh4svRQgbYorXTMC7dao)

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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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1\_abcmiz\_a : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_trees\_2 : \iota \Rightarrow o$ be given. Let $k3\_trees\_9 : \iota \Rightarrow \iota$ be given. Let $v3\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v3\_trees\_2\ X0))) \Rightarrow (X0 \in k3\_trees\_9\ X0) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow ((v1\_relat\_1\ (k28\_abcmiz\_1\ X0)) \wedge ((\neg v3\_relat\_1\ (k28\_abcmiz\_1\ X0)) \wedge ((v4\_relat\_1\ (k28\_abcmiz\_1\ X0)\ (u1\_struct\_0\ X0)) \wedge ((v1\_funct\_1\ (k28\_abcmiz\_1\ X0)) \wedge (v1\_partfun1\ (k28\_abcmiz\_1\ X0)\ (u1\_struct\_0\ X0))))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow ((v1\_relat\_1\ (k28\_abcmiz\_1\ X0)) \wedge ((v4\_relat\_1\ (k28\_abcmiz\_1\ X0)\ (u1\_struct\_0\ X0)) \wedge ((v1\_funct\_1\ (k28\_abcmiz\_1\ X0)) \wedge (v1\_partfun1\ (k28\_abcmiz\_1\ X0)\ (u1\_struct\_0\ X0))))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0)))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0)))))\Rightarrow((m1\_abcmiz\_a\ X2\ X0\ X1)\Leftrightarrow(X2\in k3\_trees\_9\ X1))))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_msualg\_1\ X0)\Rightarrow(((v2\_struct\_0\ X0)\wedge(v1\_instalg1\ X0))\Rightarrow(v11\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_msualg\_1\ X0)\Rightarrow(((v1\_instalg1\ X0)\wedge(v1\_abcmiz\_1\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge(v1\_instalg1\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge(l1\_msualg\_1\ X0)))\wedge((v1\_relat\_1\ X1)\wedge((\neg v3\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ X0))\wedge((v1\_funct\_1\ X1)\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ X0))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ X1))))\Rightarrow((v1\_finset\_1\ X2)\wedge(v3\_trees\_2\ X2))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge(l1\_msualg\_1\ X0)))\wedge((v1\_relat\_1\ X1)\wedge((\neg v3\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ X0))\wedge((v1\_funct\_1\ X1)\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ X0))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ X1))))\Rightarrow((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))) \tag{8}$$

Theorem 1

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k3\_card\_3\ (u3\_msualg\_1\ X0\ (k1\_msafree3\ X0\ (k28\_abcmiz\_1\ X0)))))\Rightarrow(m1\_abcmiz\_a\ X1\ X0\ X1))$$