t80_abcmiz_1 (TM-SNFQ7g3ksWCmDoB47KpJZuZfT7m5Vv6GQ)

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 $m3\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k40\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k41\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k42\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k38\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $v9\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_abcmiz\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12\_abcmiz\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xtuple\_0 : \iota \Rightarrow o$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge ((v3\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0)))) \wedge (m3\_abcmiz\_1\ X1\ X0)) \Rightarrow (k42\_abcmiz\_1\ X0\ X1 = k2\_xtuple\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge ((v3\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0)))) \wedge (m3\_abcmiz\_1\ X1\ X0)) \Rightarrow (k41\_abcmiz\_1\ X0\ X1 = k1\_xtuple\_0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_instalg1\ X0) \wedge ((v1\_abcmiz\_1\ X0) \wedge ((v3\_abcmiz\_1\ X0) \wedge (l1\_msualg\_1\ X0)))) \wedge (((v1\_finset\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k38\_abcmiz\_1\ X0)))) \wedge ((v9\_abcmiz\_1\ X2\ X0) \wedge (m1\_abcmiz\_1\ X2\ X0\ (k12\_abcmiz\_1\ X0))))) \Rightarrow (k40\_abcmiz\_1\ X0\ X1\ X2 = k4\_tarski\ X1\ X2) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xtuple\_0\ X0) \Rightarrow (k4\_tarski\ (k1\_xtuple\_0\ X0)\ (k2\_xtuple\_0\ X0) = X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\wedge(m3\_abcmiz\_1\ X1\ X0))\Rightarrow(v1\_finset\_1\ (k1\_xtuple\_0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\wedge(m3\_abcmiz\_1\ X1\ X0))\Rightarrow((v9\_abcmiz\_1\ (k42\_abcmiz\_1\ X0\ X1)\ X0)\wedge(m1\_abcmiz\_1\ (k42\_abcmiz\_1\ X0\ X1)\ X0\ (k12\_abcmiz\_1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\wedge(m3\_abcmiz\_1\ X1\ X0))\Rightarrow(m1\_subset\_1\ (k41\_abcmiz\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k38\_abcmiz\_1\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{9}$$

Assume the following.

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m3\_abcmiz\_1\ X1\ X0)\Rightarrow(v1\_xtuple\_0\ X1)) \tag{10}$$

Theorem 1

$$\forall X0.((v1\_instalg1\ X0)\wedge((v1\_abcmiz\_1\ X0)\wedge((v3\_abcmiz\_1\ X0)\wedge(l1\_msualg\_1\ X0))))\Rightarrow(\forall X1.(m3\_abcmiz\_1\ X1\ X0)\Rightarrow(X1 = k40\_abcmiz\_1\ X0\ (k41\_abcmiz\_1\ X0\ X1)\ (k42\_abcmiz\_1\ X0\ X1)))$$