t12_msualg_6 (TMT6C3GuBFfTRgDRfxVgLNihfjHf2b97WqY)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v11\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_msualg\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $l3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $r1\_msualg\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_msualg\_6 : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_msualg\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow (m1\_subset\_1\ (k3\_msualg\_6\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v11\_struct\_0\ X0) \wedge (l1\_msualg\_1\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(l3\_msualg\_1\ X3\ X0) \Rightarrow (\forall X4.((v1\_relat\_1\ X4) \wedge (v1\_funct\_1\ X4)) \Rightarrow ((r1\_msualg\_6\ X0\ X1\ X2\ X3\ X4) \Leftrightarrow (\exists X5.(m1\_subset\_1\ X5\ (u4\_struct\_0\ X0)) \wedge ((k2\_msualg\_1\ X0\ X5 = X2) \wedge (\exists X6.(m1\_subset\_1\ X6\ k5\_numbers) \wedge ((X6 \in k4\_finseq\_1\ (k1\_msualg\_1\ X0\ X5)) \wedge ((k7\_partfun1\ (u1\_struct\_0\ X0)\ (k1\_msualg\_1\ X0\ X5)\ X6 = X1) \wedge (\exists X7.((v1\_relat\_1\ X7) \wedge (v1\_funct\_1\ X7)) \wedge ((X7 \in k3\_msualg\_1\ X0\ X5\ X3) \wedge (X4 = k4\_msualg\_6\ X0\ X5\ X6\ X3\ X7)))))))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge(l1\_msualg\_1\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))\Rightarrow((X1 = k3\_msualg\_6\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((k4\_tarski\ X2\ X3 \in X1)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (u4\_struct\_0\ X0))\wedge((k2\_msualg\_1\ X0\ X4 = X3)\wedge(\exists X5.(m1\_subset\_1\ X5\ k5\_numbers)\wedge((X5 \in k4\_finseq\_1\ (k1\_msualg\_1\ X0\ X4))\wedge(k7\_partfun1\ (u1\_struct\_0\ X0)\ (k1\_msualg\_1\ X0\ X4)\ X5 = X2)))))))))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v11\_struct\_0\ X0)\wedge(l1\_msualg\_1\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(l3\_msualg\_1\ X3\ X0)\Rightarrow(\forall X4.((v1\_relat\_1\ X4)\wedge(v1\_funct\_1\ X4))\Rightarrow((r1\_msualg\_6\ X0\ X1\ X2\ X3\ X4)\Rightarrow(k4\_tarski\ X1\ X2 \in k3\_msualg\_6\ X0))))))$$