t95_aofa_000 (TMSpjewhemzyLChaHBf7SzDjpH95qUk2EP7)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_unialg\_1 : \iota \Rightarrow o$ be given. Let $v3\_unialg\_1 : \iota \Rightarrow o$ be given. Let $v4\_unialg\_1 : \iota \Rightarrow o$ be given. Let $v3\_aofa\_000 : \iota \Rightarrow o$ be given. Let $v4\_aofa\_000 : \iota \Rightarrow o$ be given. Let $v5\_aofa\_000 : \iota \Rightarrow o$ be given. Let $v6\_aofa\_000 : \iota \Rightarrow o$ be given. Let $l1\_unialg\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k18\_aofa\_000 : \iota \Rightarrow \iota$ be given. Let $v15\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_unialg\_1\ X0) \wedge ((v3\_unialg\_1\ X0) \wedge ((v4\_unialg\_1\ X0) \wedge ((v3\_aofa\_000\ X0) \wedge ((v4\_aofa\_000\ X0) \wedge ((v5\_aofa\_000\ X0) \wedge ((v6\_aofa\_000\ X0) \wedge (l1\_unialg\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ X2)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ X2) \Rightarrow (\forall X5.(m1\_aofa\_000\ X5\ X0\ X2\ X3) \Rightarrow ((X1 \in k18\_aofa\_000\ X0) \Rightarrow (k4\_tarski\ X4\ X1 \in k21\_aofa\_000\ X0\ X2\ X3\ X5)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_unialg\_1\ X0) \wedge ((v3\_unialg\_1\ X0) \wedge ((v4\_unialg\_1\ X0) \wedge ((v3\_aofa\_000\ X0) \wedge ((v4\_aofa\_000\ X0) \wedge ((v5\_aofa\_000\ X0) \wedge ((v6\_aofa\_000\ X0) \wedge (l1\_unialg\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((v15\_aofa\_000\ X1\ X0) \Leftrightarrow (\forall X2.(\neg v1\_xboole\_0\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ X2) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ X2)) \Rightarrow (\forall X5.(m1\_aofa\_000\ X5\ X0\ X2\ X4) \Rightarrow (k4\_tarski\ X3\ X1 \in k21\_aofa\_000\ X0\ X2\ X4\ X5)))))))) \tag{2}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_unialg\_1\ X0)\wedge((v3\_unialg\_1\ X0)\wedge((v4\_unialg\_1\ X0)\wedge((v3\_aofa\_000\ X0)\wedge((v4\_aofa\_000\ X0)\wedge((v5\_aofa\_000\ X0)\wedge((v6\_aofa\_000\ X0)\wedge(l1\_unialg\_1\ X0))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow((X1 \in k18\_aofa\_000\ X0)\Rightarrow(v15\_aofa\_000\ X1\ X0)))$$