t74_tex_4 (TMV-foBa17KbYPuHSXXrF8SEaG1sRqMXFYbu)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_tex\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k2\_tex\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((X2 \in k2\_tex\_4\ X0\ X1) \Leftrightarrow (k2\_tex\_4\ X0\ X2 = k2\_tex\_4\ X0\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l1\_pre\_topc\ X0)) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))) \Rightarrow (\neg v1\_xboole\_0\ (k2\_tex\_4\ X0\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow (l1\_pre\_topc\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))) \Rightarrow ((v1\_pre\_topc\ (k5\_tex\_4\ X0\ X1)) \wedge (m1\_pre\_topc\ (k5\_tex\_4\ X0\ X1)\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.((v1\_pre\_topc\ X2)\wedge(m1\_pre\_topc\ X2\ X0))\Rightarrow((X2 = k5\_tex\_4\ X0\ X1)\Leftrightarrow(u1\_struct\_0\ X2 = k2\_tex\_4\ X0\ X1)))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow((v1\_pre\_topc\ X0)\Rightarrow(X0 = g1\_pre\_topc\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0))) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((m1\_subset\_1\ X2\ (u1\_struct\_0\ (k5\_tex\_4\ X0\ X1)))\Leftrightarrow(g1\_pre\_topc\ (u1\_struct\_0\ (k5\_tex\_4\ X0\ X2))\ (u1\_pre\_topc\ (k5\_tex\_4\ X0\ X2)) = g1\_pre\_topc\ (u1\_struct\_0\ (k5\_tex\_4\ X0\ X1))\ (u1\_pre\_topc\ (k5\_tex\_4\ X0\ X1))))))$$