l78_geomtrap (TMFkh9tbeoQobg98ywqbgPqmbrUifSxCLJq)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v6\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v7\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v8\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_geomtrap : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_geomtrap : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge (l1\_rlvect\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X5\ X6))) \Rightarrow (\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X5\ X6))) \Rightarrow (\forall X9.(m1\_subset\_1\ X9\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X5\ X6))) \Rightarrow (\forall X10.(m1\_subset\_1\ X10\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X5\ X6))) \Rightarrow (((X1 = X7) \wedge ((X2 = X8) \wedge ((X3 = X9) \wedge (X4 = X10)))) \Rightarrow ((r2\_analoaf\ (k7\_geomtrap\ X0\ X5\ X6)\ X7\ X8\ X9\ X10) \Leftrightarrow (r2\_geomtrap\ X0\ X5\ X6\ X1\ X2\ X3\ X4)))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v5\_rlvect\_1\ X0) \wedge ((v6\_rlvect\_1\ X0) \wedge ((v7\_rlvect\_1\ X0) \wedge ((v8\_rlvect\_1\ X0) \wedge (l1\_rlvect\_1\ X0))))))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X1\ X2))) \Leftrightarrow (m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge(l1\_rlvect\_1\ X0))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(((r1\_analmetr\ X0\ X1\ X2)\wedge(r2\_geomtrap\ X0\ X1\ X2\ X3\ X4\ X4\ X5))\Rightarrow((X3 = X4)\wedge(X4 = X5)))))))) \tag{3}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge(l1\_rlvect\_1\ X0))))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X1\ X2)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X1\ X2)))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ (k7\_geomtrap\ X0\ X1\ X2)))\Rightarrow(((r1\_analmetr\ X0\ X1\ X2)\wedge(r2\_analoaf\ (k7\_geomtrap\ X0\ X1\ X2)\ X3\ X4\ X4\ X5))\Rightarrow((X3 = X4)\wedge(X4 = X5))))))))$$