l36_homothet (TMXq8W18M6AiGr2CEnCBDix6DhrH1LmDBLi)

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Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_diraf : \iota \Rightarrow o$ be given. Let $v2\_diraf : \iota \Rightarrow o$ be given. Let $l1\_analoaf : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_homothet : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8\_transgeo : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((\exists X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \wedge (\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \wedge (r2\_aff\_1\ X0\ X2\ X3\ X1))) \Rightarrow (v1\_aff\_1\ X1\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge ((v2\_diraf\ X0) \wedge (l1\_analoaf\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge ((v1\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge ((v3\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))) \Rightarrow (((r2\_aff\_1\ X0\ X1\ X2\ X3) \wedge (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow ((k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X4\ X5 = X6) \Leftrightarrow (((X5 \in X3) \wedge (X5 = X6)) \vee ((\neg X5 \in X3) \wedge (\exists X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0)) \wedge (\exists X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0)) \wedge ((X7 \in X3) \wedge ((X8 \in X3) \wedge ((r2\_analoaf\ X0\ X7\ X1\ X8\ X5) \wedge ((r2\_analoaf\ X0\ X7\ X2\ X8\ X6) \wedge (r2\_aff\_1\ X0\ X5\ X6\ X3))))))))))))) \Rightarrow ((X1 \in X3) \vee (v8\_transgeo\ X4\ X0)))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge (l1\_analoaf\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v3\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))))\Rightarrow(((r2\_aff\_1\ X0\ X1\ X2\ X3)\wedge(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow((k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X4\ X5 = X6)\Leftrightarrow(((X5 \in X3)\wedge(X5 = X6))\vee((\neg X5 \in X3)\wedge(\exists X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\wedge(\exists X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\wedge((X7 \in X3)\wedge((X8 \in X3)\wedge((r2\_analoaf\ X0\ X7\ X1\ X8\ X5)\wedge((r2\_analoaf\ X0\ X7\ X2\ X8\ X6)\wedge(r2\_aff\_1\ X0\ X5\ X6\ X3))))))))))))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(r2\_aff\_1\ X0\ X5\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X4\ X5)\ X3)))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge (l1\_analoaf\ X0))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v3\_funct\_2\ X1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((r1\_homothet\ X0\ X1\ X2)\Leftrightarrow((v8\_transgeo\ X1\ X0)\wedge((v1\_aff\_1\ X2\ X0)\wedge((\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((X3 \in X2)\Rightarrow(k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X3 = X3)))\wedge(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(r2\_aff\_1\ X0\ X3\ (k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X1\ X3)\ X2)))))))) \tag{4}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge (l1\_analoaf\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge((v3\_funct\_2\ X4\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))))))\Rightarrow(((r2\_aff\_1\ X0\ X1\ X2\ X3)\wedge(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow((k3\_funct\_2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)\ X4\ X5 = X6)\Leftrightarrow(((X5 \in X3)\wedge(X5 = X6))\vee((\neg X5 \in X3)\wedge(\exists X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\wedge(\exists X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\wedge((X7 \in X3)\wedge((X8 \in X3)\wedge((r2\_analoaf\ X0\ X7\ X1\ X8\ X5)\wedge((r2\_analoaf\ X0\ X7\ X2\ X8\ X6)\wedge(r2\_aff\_1\ X0\ X5\ X6\ X3))))))))))))))\Rightarrow((X1 \in X3)\vee(r1\_homothet\ X0\ X4\ X3)))))))$$