l30_homothet (TMF-FVEp3dPRthBHJm8tSEUdHWFGhZJQddvt)

October 27, 2020

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 $r2\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_aff\_2 : \iota \Rightarrow o$ be given. Let $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_aff\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_aff\_1\ X0\ X1\ X2\ X3) \Rightarrow ((r1\_aff\_1\ X0\ X1\ X3\ X2) \wedge ((r1\_aff\_1\ X0\ X2\ X1\ X3) \wedge ((r1\_aff\_1\ X0\ X2\ X3\ X1) \wedge ((r1\_aff\_1\ X0\ X3\ X1\ X2) \wedge (r1\_aff\_1\ X0\ X3\ X2\ X1)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(X1 \neq X2) \wedge ((\neg(\neg(r2\_analoaf\ X0\ X1\ X2\ X3\ X4) \wedge (r2\_analoaf\ X0\ X1\ X2\ X5\ X6)) \wedge ((\neg(r2\_analoaf\ X0\ X1\ X2\ X3\ X4) \wedge (r2\_analoaf\ X0\ X5\ X6\ X1\ X2)) \wedge ((\neg(r2\_analoaf\ X0\ X3\ X4\ X1\ X2) \wedge (r2\_analoaf\ X0\ X5\ X6\ X1\ X2)) \wedge (\neg(r2\_analoaf\ X0\ X3\ X4\ X1\ X2) \wedge (r2\_analoaf\ X0\ X1\ X2\ X5\ X6))))) \wedge (\neg r2\_analoaf\ X0\ X3\ X4\ X5\ X6)))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.((v1\_aff\_1\ X2\ X0)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow (\exists X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\wedge ((X1 \in X3)\wedge(r5\_aff\_1\ X0\ X2\ X3)))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1 X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((r5\_aff\_1\ X0\ X2\ X3)\wedge((X1 \in X2)\wedge(X1 \in X3)))\Rightarrow(X2 = X3))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1 (u1\_struct\_0\ X0)))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1 (u1\_struct\_0\ X0)))\Rightarrow(((r2\_aff\_1\ X0\ X1\ X2\ X3)\wedge(r5\_aff\_1\ X0\ X3\ X4))\Rightarrow (r2\_aff\_1\ X0\ X1\ X2\ X4)))))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow ((r3\_aff\_1\ X0\ X1\ X2)\Rightarrow((v1\_aff\_1\ X1\ X0)\wedge(v1\_aff\_1\ X2\ X0))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1 X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1 (u1\_struct\_0\ X0)))\Rightarrow(\neg(r2\_aff\_1\ X0\ X1\ X2\ X3)\wedge((\neg X1 \in X3)\wedge(X2 \in X3)))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow ((\exists X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\wedge(\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge(r2\_aff\_1\ X0\ X2\ X3\ X1)))\Rightarrow(v1\_aff\_1 X1\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((X3 = k2\_aff\_1\ X0\ X1\ X2)\Rightarrow((X1 = X2)\vee((v1\_aff\_1\ X3\ X0)\wedge((X1 \in X3)\wedge((X2 \in X3)\wedge(X1 \neq X2))))))\wedge(((v1\_aff\_1\ X3\ X0)\wedge((X1 \in X3)\wedge(X2 \in X3)))\Rightarrow((X1 = X2)\vee((X1 \neq X2)\wedge(X3 = k2\_aff\_1\ X0\ X1\ X2)))))))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((v1\_aff\_1\ X3\ X0)\wedge(X1 \in X3))\Rightarrow((X2 \in X3)\Leftrightarrow(r2\_aff\_1\ X0\ X1\ X2\ X3)))))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\wedge((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow((r5\_aff\_1\ X0\ X1\ X2)\Leftrightarrow(r3\_aff\_1\ X0\ X1\ X2)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(k2\_aff\_1\ X0\ X1\ X2 = k1\_aff\_1\ X0\ X1\ X2) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge(l1\_analoaf\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((r2\_aff\_1\ X0\ X1\ X2\ X9)\wedge((v7\_aff\_2\ X0)\wedge((X4 \in X9)\wedge((X5 \in X9)\wedge((r2\_analoaf\ X0\ X4\ X1\ X5\ X3)\wedge((r2\_analoaf\ X0\ X4\ X2\ X5\ X6)\wedge((r2\_aff\_1\ X0\ X3\ X6\ X9)\wedge((X7 \in X9)\wedge((X8 \in X9)\wedge(r2\_analoaf\ X0\ X7\ X1\ X8\ X3))))))))))\Rightarrow((X1 \in X9)\vee((X3 \in X9)\vee(r2\_analoaf\ X0\ X7\ X2\ X8\ X6)))))))))))) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(m1\_subset\_1\ (k2\_aff\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((X3 = k1\_aff\_1\ X0\ X1\ X2)\Leftrightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow((X4 \in X3)\Leftrightarrow(r1\_aff\_1\ X0\ X1\ X2\ X4)))))))) \tag{15}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_aff\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(r2\_analoaf\ X0\ X1\ X2\ X1\ X3))))) \tag{16}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge(l1\_analoaf\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (u1\_struct\_0\ X0))\Rightarrow(\forall X10.(m1\_subset\_1\ X10\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((r2\_aff\_1\ X0\ X1\ X2\ X10)\wedge((v7\_aff\_2\ X0)\wedge((X4 \in X10)\wedge((X5 \in X10)\wedge((r2\_analoaf\ X0\ X4\ X1\ X5\ X3)\wedge((r2\_analoaf\ X0\ X4\ X2\ X5\ X6)\wedge((r2\_aff\_1\ X0\ X3\ X6\ X10)\wedge((X7 \in X10)\wedge((X8 \in X10)\wedge((r2\_analoaf\ X0\ X7\ X1\ X8\ X3)\wedge((r2\_aff\_1\ X0\ X3\ X9\ X10)\wedge(r2\_analoaf\ X0\ X7\ X2\ X8\ X9))))))))))))\Rightarrow((X1 \in X10)\vee((X3 \in X10)\vee(X9 = X6)))))))))))))$$