t1_conmetr1 (TMdi4mzMxuQDLexwqpyaTdTJHkYeygdGpnr)

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 $v4\_conmetr1 : \iota \Rightarrow o$ be given. Let $v5\_conmetr1 : \iota \Rightarrow o$ be given. Let $v6\_conmetr1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ 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 $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge ((v2\_diraf\ X0) \wedge (l1\_analoaf\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\neg(v1\_aff\_1\ X1\ X0) \wedge ((v1\_aff\_1\ X2\ X0) \wedge ((\neg r5\_aff\_1\ X0\ X1\ X2) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\neg(X3 \in X1) \wedge (X3 \in X2)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_diraf\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((r3\_aff\_1\ X0\ X1\ X2) \Rightarrow ((v1\_aff\_1\ X1\ X0) \wedge (v1\_aff\_1\ X2\ X0))))) \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge(l1\_analoaf\ X0)))\wedge((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))))\Rightarrow((r5\_aff\_1\ X0\ X1\ X2)\Leftrightarrow(r3\_aff\_1\ X0\ X1\ X2)) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge(l1\_analoaf\ X0))))\Rightarrow((v6\_conmetr1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (u1\_struct\_0\ X0))\Rightarrow(\forall X10.(m1\_subset\_1\ X10\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X11.(m1\_subset\_1\ X11\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((v1\_aff\_1\ X10\ X0)\wedge((v1\_aff\_1\ X11\ X0)\wedge((X1\in X10)\wedge((X1\in X11)\wedge((X2\in X10)\wedge((X4\in X10)\wedge((X7\in X10)\wedge((X9\in X10)\wedge((X3\in X11)\wedge((X5\in X11)\wedge((X6\in X11)\wedge((X8\in X11)\wedge((r2\_analoaf\ X0\ X4\ X3\ X8\ X7)\wedge((r2\_analoaf\ X0\ X3\ X2\ X7\ X6)\wedge(r2\_analoaf\ X0\ X2\ X5\ X6\ X9))))))))))))))\Rightarrow((X5\in X10)\vee((X3\in X10)\vee((X6\in X10)\vee((X8\in X10)\vee((X2\in X11)\vee((X4\in X11)\vee((X7\in X11)\vee((X9\in X11)\vee(r2\_analoaf\ X0\ X4\ X5\ X8\ X9)))))))))))))))))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge(l1\_analoaf\ X0))))\Rightarrow((v5\_conmetr1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X10.(m1\_subset\_1\ X10\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((r5\_aff\_1\ X0\ X9\ X10)\wedge((X1\in X9)\wedge((X3\in X9)\wedge((X6\in X9)\wedge((X8\in X9)\wedge((X2\in X10)\wedge((X4\in X10)\wedge((X5\in X10)\wedge((X7\in X10)\wedge((r2\_analoaf\ X0\ X3\ X2\ X7\ X6)\wedge((r2\_analoaf\ X0\ X2\ X1\ X6\ X5)\wedge(r2\_analoaf\ X0\ X1\ X4\ X5\ X8))))))))))\Rightarrow((X4\in X9)\vee((X2\in X9)\vee((X5\in X9)\vee((X7\in X9)\vee((X1\in X10)\vee((X3\in X10)\vee((X6\in X10)\vee((X8\in X10)\vee(r2\_analoaf\ X0\ X3\ X4\ X7\ X8)))))))))))))))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge (l1\_analoaf\ X0))))\Rightarrow((v4\_conmetr1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0))\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ (u1\_struct\_0\ X0))\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ (u1\_struct\_0\ X0))\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ (u1\_struct\_0\ X0))\Rightarrow(\forall X9.(m1\_subset\_1\ X9\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X10.(m1\_subset\_1\ X10\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(((v1\_aff\_1\ X9\ X0)\wedge((v1\_aff\_1\ X10\ X0)\wedge((X1\in X9)\wedge((X3\in X9)\wedge((X6\in X9)\wedge((X8\in X9)\wedge((X2\in X10)\wedge((X4\in X10)\wedge((X5\in X10)\wedge((X7\in X10)\wedge((r2\_analoaf\ X0\ X3\ X2\ X7\ X6)\wedge((r2\_analoaf\ X0\ X2\ X1\ X6\ X5)\wedge(r2\_analoaf\ X0\ X1\ X4\ X5\ X8))))))))))))\Rightarrow((X4\in X9)\vee((X2\in X9)\vee((X5\in X9)\vee((X7\in X9)\vee((X1\in X10)\vee((X3\in X10)\vee((X6\in X10)\vee((X8\in X10)\vee(r2\_analoaf\ X0\ X3\ X4\ X7\ X8))))))))))))))))))) \tag{8}$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_diraf\ X0)\wedge((v2\_diraf\ X0)\wedge (l1\_analoaf\ X0))))\Rightarrow((v4\_conmetr1\ X0)\Leftrightarrow((v5\_conmetr1\ X0)\wedge(v6\_conmetr1\ X0)))$$