t6_afvect01 (TMP168Cye2AiChwPXxVVfzUdkv9WazXzbN8)

October 27, 2020

Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_afvect01 : \iota \Rightarrow o$ 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 $r2\_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge ((v1\_afvect01\ X0) \wedge (l1\_analoaf\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (r2\_analoaf\ X0\ X1\ X1\ X2\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_analoaf\ X0) \Rightarrow (l1\_struct\_0\ X0) \tag{2}$$

Assume the following.

$$
\begin{gathered}
\forall X0.((\neg \mathit{v2\_struct\_0}\ X0)\wedge(\mathit{l1\_analoaf}\ X0))\Rightarrow((\mathit{v1\_afvect01} \\
X0)\Leftrightarrow((\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2. \\
(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\mathit{r2\_analoaf}\ X0\ X1\ X2\ X2\ X1)))\wedge \\
((\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2.(\\
\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow((\mathit{r2\_analoaf}\ X0\ X1\ X2\ X1\ X1)\Rightarrow(\\
X1 = X2))))\wedge((\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2. \\
(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X3.(\mathit{m1\_subset\_1}\ X3 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X4.(\mathit{m1\_subset\_1}\ X4\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
(\forall X5.(\mathit{m1\_subset\_1}\ X5\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X6.(\mathit{m1\_subset\_1} \\
X6\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(((\mathit{r2\_analoaf}\ X0\ X1\ X2\ X5\ X6)\wedge(\mathit{r2\_analoaf} \\
X0\ X3\ X4\ X5\ X6))\Rightarrow(\mathit{r2\_analoaf}\ X0\ X1\ X2\ X3\ X4))))))))\wedge((\forall X1. \\
(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2.(\mathit{m1\_subset\_1}\ X2 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\exists X3.(\mathit{m1\_subset\_1}\ X3\ (\mathit{u1\_struct\_0}\ X0))\wedge \\
(\mathit{r2\_analoaf}\ X0\ X1\ X3\ X3\ X2))))\wedge((\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\forall X2.(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X3. \\
(\mathit{m1\_subset\_1}\ X3\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X4.(\mathit{m1\_subset\_1}\ X4 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X5.(\mathit{m1\_subset\_1}\ X5\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
(((\mathit{r2\_analoaf}\ X0\ X5\ X1\ X5\ X2)\wedge(\mathit{r2\_analoaf}\ X0\ X5\ X3\ X5\ X4))\Rightarrow((X1 = X2)\vee \\
((X3 = X4)\vee(\mathit{r2\_analoaf}\ X0\ X1\ X3\ X2\ X4)))))))))\wedge((\forall X1.(\mathit{m1\_subset\_1} \\
X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2.(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\neg(X1\neq X2)\wedge(\forall X3.(\mathit{m1\_subset\_1}\ X3\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
((\neg(X1\neq X3)\wedge(\mathit{r2\_analoaf}\ X0\ X1\ X2\ X2\ X3))\wedge(\forall X4.(\mathit{m1\_subset\_1} \\
X4\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X5.(\mathit{m1\_subset\_1}\ X5\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\neg(X4\neq X5)\wedge((\mathit{r2\_analoaf}\ X0\ X1\ X2\ X4\ X5)\wedge((\mathit{r2\_analoaf}\ X0\ X1 \\
X4\ X4\ X2)\wedge(\mathit{r2\_analoaf}\ X0\ X1\ X5\ X5\ X2)))))))))))\wedge((\forall X1.(\mathit{m1\_subset\_1} \\
X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X2.(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\forall X3.(\mathit{m1\_subset\_1}\ X3\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X4. \\
(\mathit{m1\_subset\_1}\ X4\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X5.(\mathit{m1\_subset\_1}\ X5 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X6.(\mathit{m1\_subset\_1}\ X6\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
(((\mathit{r2\_analoaf}\ X0\ X1\ X2\ X2\ X6)\wedge((\mathit{r2\_analoaf}\ X0\ X2\ X3\ X4\ X5)\wedge((\mathit{r2\_analoaf} \\
X0\ X2\ X4\ X4\ X3)\wedge(\mathit{r2\_analoaf}\ X0\ X2\ X5\ X5\ X3))))\Rightarrow(\mathit{r2\_analoaf}\ X0\ X1\ X3 \\
X3\ X6))))))))\wedge((\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
(\forall X2.(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X3.(\mathit{m1\_subset\_1} \\
X3\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X4.(\mathit{m1\_subset\_1}\ X4\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\neg(X1\neq X4)\wedge((X2\neq X3)\wedge((\mathit{r2\_analoaf}\ X0\ X1\ X2\ X2\ X4)\wedge((\mathit{r2\_analoaf} \\
X0\ X1\ X3\ X3\ X4)\wedge(\forall X5.(\mathit{m1\_subset\_1}\ X5\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\\
\forall X6.(\mathit{m1\_subset\_1}\ X6\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\neg(X5\neq X6)\wedge((\mathit{r2\_analoaf} \\
X0\ X2\ X3\ X5\ X6)\wedge((\mathit{r2\_analoaf}\ X0\ X2\ X5\ X5\ X3)\wedge(\mathit{r2\_analoaf}\ X0\ X2\ X6\ X6 \\
X3))))))))))))))\wedge(\forall X1.(\mathit{m1\_subset\_1}\ X1\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow \\
(\forall X2.(\mathit{m1\_subset\_1}\ X2\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X3.(\mathit{m1\_subset\_1} \\
X3\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X4.(\mathit{m1\_subset\_1}\ X4\ (\mathit{u1\_struct\_0} \\
X0))\Rightarrow(\forall X5.(\mathit{m1\_subset\_1}\ X5\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X6. \\
(\mathit{m1\_subset\_1}\ X6\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X7.(\mathit{m1\_subset\_1}\ X7 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\neg(\mathit{r2\_analoaf}\ X0\ X1\ X2\ X4\ X5)\wedge((\mathit{r2\_analoaf}\ X0 \\
X1\ X3\ X6\ X7)\wedge((\mathit{r2\_analoaf}\ X0\ X1\ X4\ X4\ X2)\wedge((\mathit{r2\_analoaf}\ X0\ X1\ X6\ X6\ X3)\wedge \\
((\mathit{r2\_analoaf}\ X0\ X1\ X5\ X5\ X2)\wedge((\mathit{r2\_analoaf}\ X0\ X1\ X7\ X7\ X3)\wedge(\forall X8. \\
(\mathit{m1\_subset\_1}\ X8\ (\mathit{u1\_struct\_0}\ X0))\Rightarrow(\forall X9.(\mathit{m1\_subset\_1}\ X9 \\
(\mathit{u1\_struct\_0}\ X0))\Rightarrow(\neg(\mathit{r2\_analoaf}\ X0\ X2\ X3\ X8\ X9)\wedge((\mathit{r2\_analoaf}\ X0 \\
X2\ X8\ X8\ X3)\wedge(\mathit{r2\_analoaf}\ X0\ X2\ X9\ X9\ X3))))))))))))))))))))))))))
\end{gathered}
\tag{3}
$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow((v2\_struct\_0\ X0)\Rightarrow(v7\_struct\_0\ X0)) \qquad (4)$$

Theorem 1

$$\forall X0.((\neg v7\_struct\_0\ X0)\wedge((v1\_afvect01\ X0)\wedge(l1\_analoaf\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r2\_analoaf\ X0\ X1\ X2\ X3\ X3)\Rightarrow(X1 = X2)))))$$