

t33_afvect0

(TMY7xpP7hCJ4YzJkJzMWTfVa2tqSVGczQRS)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_afvect0 : \iota \Rightarrow o$ 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 $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_afvect0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_afvect0 X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & ((r2_analoaf X0 X1 X2 X3 X4) \Rightarrow (r2_analoaf X0 X2 X1 X4 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_afvect0 X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & ((r2_analoaf X0 X1 X2 X3 X4) \Rightarrow (r2_analoaf X0 X3 X4 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_afvect0 X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (r2_analoaf X0 X1 X2 (k1_afvect0 X0 X3 X2) (k1_afvect0 \\ & X0 X3 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v7_struct_0 X0)\wedge((v1_afvect0 X0)\wedge(l1_analoaf X0)))\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k1_afvect0 X0 X1 X2) (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge(l1_analoaf X0))\Rightarrow((v1_afvect0 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((r2_analoaf X0 X1 X2 X3 X3)\Rightarrow(X1 = X2))))))\wedge((\\ & \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(((r2_analoaf X0 X1 X2 X5 X6)\wedge(r2_analoaf X0 X3 X4 X5 X6))\Rightarrow(r2_analoaf X0 X1 X2 X3 X4))))))\wedge((\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(\exists X4. \\ & (m1_subset_1 X4 (u1_struct_0 X0))\wedge(r2_analoaf X0 X1 X2 X3 X4))))))\wedge \\ & ((\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(((r2_analoaf X0 X1 X2 X4 X5)\wedge(r2_analoaf X0 X1 X3 X4 X6))\Rightarrow(r2_analoaf X0 X2 X3 X5 X6))))))\wedge((\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(\exists X3.(m1_subset_1 X3 (u1_struct_0 X0))\wedge \\ & (r2_analoaf X0 X1 X3 X3 X2))))\wedge(\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((r2_analoaf X0 X1 X2 X3 X4)\Rightarrow(r2_analoaf X0 X1 X3 X2 X4)))))))))) \quad (6) \end{aligned}$$

Assume the following.

$$\forall X0.(l1_struct_0 X0)\Rightarrow((v2_struct_0 X0)\Rightarrow(v7_struct_0 X0)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0)\wedge((v1_afvect0 X0)\wedge(l1_analoaf X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(\forall X3.(m1_subset_1 X3 (u1_struct_0 X0))\Rightarrow(\forall X4.(m1_subset_1 X4 (u1_struct_0 X0))\Rightarrow \\ & (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0))\Rightarrow((r2_analoaf X0 X1 X2 X3 X4)\Leftrightarrow(r2_analoaf X0 (k1_afvect0 X0 X5 X1) (k1_afvect0 X0 X5 X2) (k1_afvect0 X0 X5 X3) (k1_afvect0 X0 X5 X4)))))) \end{aligned}$$