t61_modelc_3 (TMcoQQYcMkfjqsUHj8tRqmJPEzaRy5B5Yv4)

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Let $v1\_modelc\_2 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25\_modelc\_2 : \iota \Rightarrow \iota$ be given. Let $k43\_modelc\_2 : \iota$ be given. Let $m1\_orders\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_orders\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_modelc\_3 : \iota \Rightarrow \iota$ be given. Let $r8\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1.((v1\_modelc\_3\ X1\ X0) \wedge (l1\_modelc\_3\ X1\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k25\_modelc\_2\ k43\_modelc\_2)) \Rightarrow (\forall X3.(m1\_orders\_1\ X3\ (k1\_orders\_1\ (k1\_modelc\_3\ X0))) \Rightarrow ((r8\_modelc\_2\ X2\ (k14\_modelc\_3\ X0\ X1)) \Rightarrow ((v3\_modelc\_3\ X1\ X0) \vee ((r8\_modelc\_2\ X2\ (k14\_modelc\_3\ X0\ (k25\_modelc\_3\ X2\ X0\ X3\ X1))) \wedge (r4\_modelc\_3\ X0\ X1\ (k25\_modelc\_3\ X2\ X0\ X3\ X1)))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1.((v1\_modelc\_3\ X1\ X0) \wedge (l1\_modelc\_3\ X1\ X0)) \Rightarrow (\forall X2.((v1\_modelc\_3\ X2\ X0) \wedge (l1\_modelc\_3\ X2\ X0)) \Rightarrow ((r4\_modelc\_3\ X0\ X2\ X1) \Rightarrow ((r1\_tarski\ (u1\_modelc\_3\ X0\ X2)\ (u1\_modelc\_3\ X0\ X1)) \wedge (r1\_tarski\ (u3\_modelc\_3\ X0\ X2)\ (u3\_modelc\_3\ X0\ X1))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X0\ (k25\_modelc\_2\ k43\_modelc\_2))\wedge(((v1\_modelc\_2\ X1)\wedge(m1\_finseq\_1\ X1\ k5\_numbers))\wedge((m1\_orders\_1\ X2\ (k1\_orders\_1\ (k1\_modelc\_3\ X1)))\wedge((v1\_modelc\_3\ X3\ X1)\wedge(l1\_modelc\_3\ X3\ X1)))))\Rightarrow((v1\_modelc\_3\ (k25\_modelc\_3\ X0\ X1\ X2\ X3)\ X1)\wedge(l1\_modelc\_3\ (k25\_modelc\_3\ X0\ X1\ X2\ X3)\ X1)) \tag{4}$$

Theorem 1

$$\forall X0.((v1\_modelc\_2\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\forall X1.((v1\_modelc\_3\ X1\ X0)\wedge(l1\_modelc\_3\ X1\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k25\_modelc\_2\ k43\_modelc\_2))\Rightarrow(\forall X3.(m1\_orders\_1\ X3\ (k1\_orders\_1\ (k1\_modelc\_3\ X0)))\Rightarrow((r8\_modelc\_2\ X2\ (k14\_modelc\_3\ X0\ X1))\Rightarrow((v3\_modelc\_3\ X1\ X0)\vee((r1\_tarski\ (u1\_modelc\_3\ X0\ X1)\ (u1\_modelc\_3\ X0\ (k25\_modelc\_3\ X2\ X0\ X3\ X1)))\wedge(r1\_tarski\ (u3\_modelc\_3\ X0\ X1)\ (u3\_modelc\_3\ X0\ (k25\_modelc\_3\ X2\ X0\ X3\ X1)))))))))$$