t25_modelc_2 (TMT3UuGPLALDzKYhT5GKqadrdzQ217drdER)

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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 $v8\_modelc\_2 : \iota \Rightarrow o$ be given. Let $r1\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11\_modelc\_2 : \iota \Rightarrow \iota$ be given. Let $k12\_modelc\_2 : \iota \Rightarrow \iota$ be given. Let $k8\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_modelc\_2 : \iota \Rightarrow o$ be given. Let $v3\_modelc\_2 : \iota \Rightarrow o$ be given. Let $v4\_modelc\_2 : \iota \Rightarrow o$ be given. Let $v5\_modelc\_2 : \iota \Rightarrow o$ be given. Let $v6\_modelc\_2 : \iota \Rightarrow o$ be given. Let $v7\_modelc\_2 : \iota \Rightarrow o$ be given. Let $k4\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_modelc\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow (\forall X1.((v1\_modelc\_2\ X1) \wedge (m2\_finseq\_1\ X1\ k5\_numbers)) \Rightarrow (\forall X2.((v1\_modelc\_2\ X2) \wedge (m2\_finseq\_1\ X2\ k5\_numbers)) \Rightarrow ((r1\_modelc\_2\ X0\ (k8\_modelc\_2\ X1\ X2)) \Leftrightarrow ((X0 = X1) \vee (X0 = X2))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0) \wedge (m2\_finseq\_1\ X0\ k5\_numbers)) \Rightarrow ((v8\_modelc\_2\ X0) \Rightarrow ((\neg v2\_modelc\_2\ X0) \wedge ((\neg v3\_modelc\_2\ X0) \wedge ((\neg v4\_modelc\_2\ X0) \wedge ((\neg v5\_modelc\_2\ X0) \wedge ((\neg v6\_modelc\_2\ X0) \wedge (\neg v7\_modelc\_2\ X0)))))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\\(\neg(\neg v4\_modelc\_2\ X0)\wedge((\neg v5\_modelc\_2\ X0)\wedge((\neg v7\_modelc\_2\ X0)\wedge\\(\neg v8\_modelc\_2\ X0))))\Rightarrow(\forall X1.((v1\_modelc\_2\ X1)\wedge(m2\_finseq\_1\\X1\ k5\_numbers))\Rightarrow(((v4\_modelc\_2\ X0)\Rightarrow((X1 = k12\_modelc\_2\ X0)\Leftrightarrow(\\\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge(\\k4\_modelc\_2\ X2\ X1 = X0))))\wedge(((v5\_modelc\_2\ X0)\Rightarrow((X1 = k12\_modelc\_2\\X0)\Leftrightarrow(\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge\\(k5\_modelc\_2\ X2\ X1 = X0))))\wedge(((v7\_modelc\_2\ X0)\Rightarrow((X1 = k12\_modelc\_2\\X0)\Leftrightarrow(\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge\\(k7\_modelc\_2\ X2\ X1 = X0))))\wedge(\neg(\neg v4\_modelc\_2\ X0)\wedge((\neg v5\_modelc\_2\\X0)\wedge((\neg v7\_modelc\_2\ X0)\wedge(\neg(X1 = k12\_modelc\_2\ X0)\Leftrightarrow(\exists X2.\\((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge(k8\_modelc\_2\\X2\ X1 = X0)))))))))) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\\(\neg(\neg v4\_modelc\_2\ X0)\wedge((\neg v5\_modelc\_2\ X0)\wedge((\neg v7\_modelc\_2\ X0)\wedge\\(\neg v8\_modelc\_2\ X0))))\Rightarrow(\forall X1.((v1\_modelc\_2\ X1)\wedge(m2\_finseq\_1\\X1\ k5\_numbers))\Rightarrow(((v4\_modelc\_2\ X0)\Rightarrow((X1 = k11\_modelc\_2\ X0)\Leftrightarrow(\\\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge(\\k4\_modelc\_2\ X1\ X2 = X0))))\wedge(((v5\_modelc\_2\ X0)\Rightarrow((X1 = k11\_modelc\_2\\X0)\Leftrightarrow(\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge\\(k5\_modelc\_2\ X1\ X2 = X0))))\wedge(((v7\_modelc\_2\ X0)\Rightarrow((X1 = k11\_modelc\_2\\X0)\Leftrightarrow(\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge\\(k7\_modelc\_2\ X1\ X2 = X0))))\wedge(\neg(\neg v4\_modelc\_2\ X0)\wedge((\neg v5\_modelc\_2\\X0)\wedge((\neg v7\_modelc\_2\ X0)\wedge(\neg(X1 = k11\_modelc\_2\ X0)\Leftrightarrow(\exists X2.\\((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\ X2\ k5\_numbers))\wedge(k8\_modelc\_2\\X1\ X2 = X0)))))))))) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_modelc\_2\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\\(v8\_modelc\_2\ X0)\Leftrightarrow(\exists X1.((v1\_modelc\_2\ X1)\wedge(m2\_finseq\_1\\X1\ k5\_numbers))\wedge(\exists X2.((v1\_modelc\_2\ X2)\wedge(m2\_finseq\_1\\X2\ k5\_numbers))\wedge(X0 = k8\_modelc\_2\ X1\ X2)))) \tag{5}$$

Theorem 1

$$\forall X0.((v1\_modelc\_2\ X0)\wedge(m2\_finseq\_1\ X0\ k5\_numbers))\Rightarrow(\\\forall X1.((v1\_modelc\_2\ X1)\wedge(m2\_finseq\_1\ X1\ k5\_numbers))\Rightarrow(\\(v8\_modelc\_2\ X0)\Rightarrow((r1\_modelc\_2\ X1\ X0)\Leftrightarrow((X1 = k11\_modelc\_2\ X0)\vee\\(X1 = k12\_modelc\_2\ X0)))))$$