

l45_modelc_1 (TMPhynQ- ToxyxLWh3BdNKEPX19Jfj61bwkG3)

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Let $v1_modelc_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v4_modelc_1 : \iota \Rightarrow o$ be given. Let $k8_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_modelc_1 : \iota \Rightarrow \iota$ be given. Let $k16_modelc_1 : \iota \Rightarrow \iota$ be given. Let $v7_modelc_1 : \iota \Rightarrow o$ be given. Let $k11_modelc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_modelc_1 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & ((v4_modelc_1 X0) \vee (v7_modelc_1 X0)) \Rightarrow (\forall X1.((v1_modelc_1 \\ X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (((v4_modelc_1 X0) \Rightarrow ((X1 = k16_modelc_1 \\ X0) \Leftrightarrow (\exists X2.((v1_modelc_1 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k8_modelc_1 X2 X1 = X0)))))) \wedge ((\neg v4_modelc_1 X0) \Rightarrow ((X1 = k16_modelc_1 \\ X0) \Leftrightarrow (\exists X2.((v1_modelc_1 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k11_modelc_1 X2 X1 = X0))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_modelc_1 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & ((v4_modelc_1 X0) \vee (v7_modelc_1 X0)) \Rightarrow (\forall X1.((v1_modelc_1 \\ X1) \wedge (m2_finseq_1 X1 k5_numbers)) \Rightarrow (((v4_modelc_1 X0) \Rightarrow ((X1 = k15_modelc_1 \\ X0) \Leftrightarrow (\exists X2.((v1_modelc_1 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k8_modelc_1 X1 X2 = X0)))))) \wedge ((\neg v4_modelc_1 X0) \Rightarrow ((X1 = k15_modelc_1 \\ X0) \Leftrightarrow (\exists X2.((v1_modelc_1 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \wedge \\ (k11_modelc_1 X1 X2 = X0))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_modelc_1 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & (v4_modelc_1 X0) \Leftrightarrow (\exists X1.((v1_modelc_1 X1) \wedge (m2_finseq_1 \\ X1 k5_numbers)) \wedge (\exists X2.((v1_modelc_1 X2) \wedge (m2_finseq_1 \\ X2 k5_numbers)) \wedge (X0 = k8_modelc_1 X1 X2))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_modelc_1 X0) \wedge (m2_finseq_1 X0 k5_numbers)) \Rightarrow (\\ & (v4_modelc_1 X0) \Rightarrow (X0 = k8_modelc_1 (k15_modelc_1 X0) (k16_modelc_1 \\ & X0))) \end{aligned}$$