

## t7\_modelc\_2

(TMbYjVxXhKRrs14xAsMEbrFcyKT38QrqZjoi)

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

$$\begin{aligned}
 & \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
 & (\neg(\neg v4\_modelc\_2 X0) \wedge (\neg v5\_modelc\_2 X0) \wedge (\neg v7\_modelc\_2 X0) \wedge \\
 & (\neg v8\_modelc\_2 X0))) \Rightarrow (\forall X1.((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 \\
 & X1 k5\_numbers)) \Rightarrow (((v4\_modelc\_2 X0) \Rightarrow ((X1 = k12\_modelc\_2 X0) \Leftrightarrow ( \\
 & \exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge ( \\
 & k4\_modelc\_2 X2 X1 = X0)))) \wedge (((v5\_modelc\_2 X0) \Rightarrow ((X1 = k12\_modelc\_2 \\
 & X0) \Leftrightarrow (\exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\
 & (k5\_modelc\_2 X2 X1 = X0)))) \wedge (((v7\_modelc\_2 X0) \Rightarrow ((X1 = k12\_modelc\_2 \\
 & X0) \Leftrightarrow (\exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\
 & (k7\_modelc\_2 X2 X1 = X0)))) \wedge (\neg(\neg v4\_modelc\_2 X0) \wedge (\neg v5\_modelc\_2 \\
 & X0) \wedge (\neg v7\_modelc\_2 X0) \wedge (\neg(X1 = k12\_modelc\_2 X0) \Leftrightarrow (\exists X2. \\
 & ((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge (k8\_modelc\_2 \\
 & X2 X1 = X0))))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
& (\neg(\neg v4\_modelc\_2 X0) \wedge (\neg v5\_modelc\_2 X0) \wedge (\neg v7\_modelc\_2 X0) \wedge \\
& (\neg v8\_modelc\_2 X0))) \Rightarrow (\forall X1.((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 \\
& X1 k5\_numbers)) \Rightarrow (((v4\_modelc\_2 X0) \Rightarrow ((X1 = k11\_modelc\_2 X0) \Leftrightarrow ( \\
& \exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge ( \\
& k4\_modelc\_2 X1 X2 = X0)))) \wedge ((v5\_modelc\_2 X0) \Rightarrow ((X1 = k11\_modelc\_2 \\
& X0) \Leftrightarrow (\exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\
& (k5\_modelc\_2 X1 X2 = X0)))) \wedge ((v7\_modelc\_2 X0) \Rightarrow ((X1 = k11\_modelc\_2 \\
& X0) \Leftrightarrow (\exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge \\
& (k7\_modelc\_2 X1 X2 = X0)))) \wedge (\neg(\neg v4\_modelc\_2 X0) \wedge (\neg v5\_modelc\_2 \\
& X0) \wedge (\neg v7\_modelc\_2 X0) \wedge (\neg(X1 = k11\_modelc\_2 X0) \Leftrightarrow (\exists X2. \\
& ((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \wedge (k8\_modelc\_2 \\
& X1 X2 = X0)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
& (v5\_modelc\_2 X0) \Leftrightarrow (\exists X1.((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 \\
& X1 k5\_numbers)) \wedge (\exists X2.((v1\_modelc\_2 X2) \wedge (m2\_finseq\_1 \\
& X2 k5\_numbers)) \wedge (X0 = k5\_modelc\_2 X1 X2)))
\end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
& (v5\_modelc\_2 X0) \Rightarrow (X0 = k5\_modelc\_2 (k11\_modelc\_2 X0) (k12\_modelc\_2 \\
& X0)))
\end{aligned}$$