

## t65\_modelc.3

(TMVuGzUSu1YZcdD3Ac5BHbztdVNkJQ43Nc2)

October 27, 2020

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  $v5\_modelc.3 : \iota \Rightarrow o$  be given. Let  $v6\_modelc.3 : \iota \Rightarrow o$  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  $v8\_modelc.2 : \iota \Rightarrow o$  be given. Let  $v2\_modelc.2 : \iota \Rightarrow o$  be given. Let  $v3\_modelc.2 : \iota \Rightarrow o$  be given. Let  $k10\_modelc.2 : \iota \Rightarrow \iota$  be given. Let  $r2\_modelc.2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_modelc.2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_modelc.2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\ (v6\_modelc.3 X0) \Leftrightarrow ((v2\_modelc.2 X0) \vee ((v3\_modelc.2 X0) \wedge (v2\_modelc.2 \\ (k10\_modelc.2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\forall X0.((v1\_modelc.2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\ r2\_modelc.2 X0 X0) \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_modelc.2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\ (v6\_modelc.3 X0) \Leftrightarrow (\neg(\neg(v2\_modelc.2 X0) \wedge (\forall X1.((v1\_modelc.2 \\ X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow (\neg(v2\_modelc.2 X1) \wedge (X0 = k3\_modelc.2 \\ X1)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
& \quad (v5\_modelc\_3 X0) \Leftrightarrow (\forall X1.((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 \\
& \quad X1 k5\_numbers)) \Rightarrow (((r2\_modelc\_2 X1 X0) \wedge (v3\_modelc\_2 X1)) \Rightarrow (v2\_modelc\_2 \\
& \quad (k10\_modelc\_2 X1))))))
\end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v1\_modelc\_2 X0) \wedge (m2\_finseq\_1 X0 k5\_numbers)) \Rightarrow ( \\
& \quad \neg(v5\_modelc\_3 X0) \wedge (\neg v6\_modelc\_3 X0) \wedge (\neg v4\_modelc\_2 X0) \wedge ( \\
& \quad \neg v5\_modelc\_2 X0) \wedge (\neg v6\_modelc\_2 X0) \wedge (\neg v7\_modelc\_2 X0) \wedge (\neg v8\_modelc\_2 \\
& \quad X0))))))
\end{aligned}$$