

# t34\_modelc\_3 (TMQzkFJCLwB- NyB17rPLAUgsH2YEMKAeK51A)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. 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  $r5\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $u2\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_modelc\_3 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_modelc\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\
& \quad (\forall X1.((v1\_modelc\_2 X1) \wedge (m2\_finseq\_1 X1 k5\_numbers)) \Rightarrow \\
& \quad ((r5\_modelc\_3 X1 X0) \wedge ((r1\_xxreal\_0 np\_1 (k3\_finseq\_1 X0)) \wedge \\
& \quad (u2\_modelc\_3 X1 (k10\_modelc\_3 (k1\_funct\_1 X0 (k3\_finseq\_1 X0)) \\
& \quad X1) = k7\_modelc\_3 X1))) \Rightarrow (r1\_tarski (u2\_modelc\_3 X1 (k10\_modelc\_3 \\
& \quad (k1\_funct\_1 X0 np\_1) X1)) (u1\_modelc\_3 X1 (k10\_modelc\_3 (k1\_funct\_1 \\
& \quad X0 (k3\_finseq\_1 X0)) X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (( \\
& \quad v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \Rightarrow (\forall X2.((v1\_modelc\_2 \\
& \quad X2) \wedge (m2\_finseq\_1 X2 k5\_numbers)) \Rightarrow (\neg (r5\_modelc\_3 X2 X1) \wedge ((r1\_xxreal\_0 \\
& \quad np\_1 X0) \wedge ((r1\_xxreal\_0 X0 (k3\_finseq\_1 X1)) \wedge (\forall X3.((v1\_relat\_1 \\
& \quad X3) \wedge ((v1\_funct\_1 X3) \wedge (v1\_finseq\_1 X3))) \Rightarrow (\forall X4.((v1\_relat\_1 \\
& \quad X4) \wedge ((v1\_funct\_1 X4) \wedge (v1\_finseq\_1 X4))) \Rightarrow (\neg (r5\_modelc\_3 X2 X4) \wedge \\
& \quad ((X1 = k7\_finseq\_1 X3 X4) \wedge ((k1\_funct\_1 X4 np\_1 = k1\_funct\_1 X1 X0) \wedge \\
& \quad ((r1\_xxreal\_0 np\_1 (k3\_finseq\_1 X4)) \wedge ((k3\_finseq\_1 X4 = k9\_real\_1 \\
& \quad (k3\_finseq\_1 X1) (k5\_real\_1 X0 np\_1)) \wedge (k1\_funct\_1 X4 (k3\_finseq\_1 \\
& \quad X4) = k1\_funct\_1 X1 (k3\_finseq\_1 X1))))))))))
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (( \\ & \quad v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (\forall X2.((v1\_modelc\_2 \\ & X2) \wedge (m2\_finseq\_1\ X2\ k5\_numbers)) \Rightarrow (((r5\_modelc\_3\ X2\ X1) \wedge ((r1\_xxreal\_0 \\ & \quad np\_1\ X0) \wedge ((r1\_xxreal\_0\ X0\ (k3\_finseq\_1\ X1)) \wedge (u2\_modelc\_3\ X2 \\ & \quad (k10\_modelc\_3\ (k1\_funct\_1\ X1\ (k3\_finseq\_1\ X1))\ X2) = k7\_modelc\_3 \\ & \quad X2)))) \Rightarrow (r1\_tarski\ (u2\_modelc\_3\ X2\ (k10\_modelc\_3\ (k1\_funct\_1 \\ & X1\ X0)\ X2))\ (u1\_modelc\_3\ X2\ (k10\_modelc\_3\ (k1\_funct\_1\ X1\ (k3\_finseq\_1 \\ & \quad X1))\ X2)))))) \end{aligned}$$