

t28\_fomodel0 (TMZScuowvxLArsWvNEFWCUL-  
reP4XTQ34Njs)

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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  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0)))) \Rightarrow ((np\_1 \in k4\_finseq\_1 X0) \wedge (k3\_finseq\_1 X0 \in k4\_finseq\_1 X0)) \quad (1)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \wedge ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1)))) \Rightarrow ((v1\_relat\_1 (k7\_finseq\_1 X0 X1)) \wedge ((v1\_funct\_1 (k7\_finseq\_1 X0 X1)) \wedge (v1\_finseq\_1 (k7\_finseq\_1 X0 X1)))) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\
& \quad (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 \\
& \quad X1))) \Rightarrow (\forall X2.((v1\_relat\_1 X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_finseq\_1 \\
& \quad X2)))) \Rightarrow ((X2 = k7\_finseq\_1 X0 X1) \Leftrightarrow ((k4\_finseq\_1 X2 = k2\_finseq\_1 \\
& \quad (k2\_nat\_1 (k3\_finseq\_1 X0) (k3\_finseq\_1 X1))) \wedge ((\forall X3.( \\
& \quad v7\_ordinal1 X3) \Rightarrow ((X3 \in k4\_finseq\_1 X0) \Rightarrow (k1\_funct\_1 X2 X3 = k1\_funct\_1 \\
& \quad X0 X3)))) \wedge (\forall X3.(v7\_ordinal1 X3) \Rightarrow ((X3 \in k4\_finseq\_1 X1) \Rightarrow \\
& \quad (k1\_funct\_1 X2 (k2\_nat\_1 (k3\_finseq\_1 X0) X3) = k1\_funct\_1 X1 X3))))))))) \\
& \hspace{15em} (5)
\end{aligned}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (6)$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\
& \quad (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 \\
& \quad X1))) \Rightarrow ((\neg v1\_xboole\_0 X0) \Rightarrow (k1\_funct\_1 (k7\_finseq\_1 X0 X1) np\_1 = \\
& \quad k1\_funct\_1 X0 np\_1)))
\end{aligned}$$