

## t13\_fomodel0

(TMTYctp76bpNjtwErLKqy7YHz4XJrd3KfkM)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_fomodel0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_monoid\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k12\_finseq\_1 X0 X1 = k5\_finseq\_1 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_funct\_1 X1) \wedge (v1\_funct\_2 X1 (k2\_zfmisc\_1 X0 X0) X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0) X0)))) \Rightarrow (\forall X2. ((\neg v1\_xboole\_0 X2) \wedge (m2\_finseq\_1 X2 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 X0) \Rightarrow ((k1\_funct\_1 \\ & (k5\_fomodel0 X0 X1) (k12\_finseq\_1 X0 X3) = X3) \wedge (k1\_funct\_1 (k5\_fomodel0 X0 X1) (k1\_monoid\_0 X0 X2 (k12\_finseq\_1 X0 X3)) = k1\_binop\_1 X1 (k1\_funct\_1 \\ & (k5\_fomodel0 X0 X1) X2) X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k5\_finseq\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (m2\_finseq\_1 (k12\_finseq\_1 X0 X1) X0) \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2.((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 (k2\_zfmisc\_1 X0 \\ & X0) X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X0) X0)))))) \Rightarrow ((k1\_funct\_1 (k5\_fomodel0 X0 X2) (k12\_finseq\_1 \\ & X0 X1) = X1) \wedge (\forall X3.((\neg v1\_xboole\_0 X3) \wedge (m2\_finseq\_1 X3 X0)) \Rightarrow \\ & (k1\_funct\_1 (k5\_fomodel0 X0 X2) (k1\_monoid\_0 X0 X3 (k12\_finseq\_1 \\ & X0 X1)) = k1\_binop\_1 X2 (k1\_funct\_1 (k5\_fomodel0 X0 X2) X3) X1)))))) \end{aligned}$$