

## t3\_modal\_1

(TMdgzfbSzNDoSQy7agE2e7a59xxJjNpTAjP)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_1 X2 k5\_numbers) \Rightarrow (\neg(X0 \neq \\ X1) \wedge (r3\_xboole\_0 (k12\_finseq\_1 k5\_numbers X0) (k8\_finseq\_1 k5\_numbers \\ (k12\_finseq\_1 k5\_numbers X1) X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(\neg(\neg r2\_xboole\_0 X0 X1) \wedge ((X0 \neq X1) \wedge (\neg r2\_xboole\_0 X1 X0))) \Leftrightarrow (r3\_xboole\_0 X0 X1) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

### Theorem 1

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_1 X2 k5\_numbers) \Rightarrow (\neg(X0 \neq \\ X1) \wedge (r2\_xboole\_0 (k12\_finseq\_1 k5\_numbers X0) (k8\_finseq\_1 k5\_numbers \\ (k12\_finseq\_1 k5\_numbers X1) X2)))))) \end{aligned}$$