

l70\_modal\_1 (TM-  
FrN7BYosk6GJbQxYLBheJaTpjMGGbWR6o)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_modal\_1 : \iota$  be given. Let  $k17\_modal\_1 : \iota$  be given. Let  $k16\_modal\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_modal\_1 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_trees\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_trees\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (X0 \neq k1\_xboole\_0) \Rightarrow (k10\_xtuple\_0 (k2\_funcop\_1 X0 X1) = k1\_tarski X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1\_xboole\_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1\_xboole\_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$r1\_subset\_1 k4\_modal\_1 k3\_modal\_1 \quad (4)$$

Assume the following.

$$m1\_subset\_1 k1\_xboole\_0 k4\_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (\neg v1\_xboole\_0 X1)) \Rightarrow ((r1\_subset\_1 X0 X1) \Leftrightarrow (r1\_xboole\_0 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(m1\_subset\_1 X2 X0))\Rightarrow(k8\_funcop\_1 X0 X1 X2 = k2\_funcop\_1 X1 X2) \quad (7)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (8)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (9)$$

Assume the following.

$$m1\_subset\_1 (k1\_domain\_1 k5\_numbers k5\_numbers k6\_numbers k6\_numbers) k4\_modal\_1 \quad (10)$$

Assume the following.

$$\neg v1\_finset\_1 k4\_ordinal1 \quad (11)$$

Assume the following.

$$\neg v1\_xboole\_0 k4\_modal\_1 \quad (12)$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \quad (13)$$

Assume the following.

$$\neg v1\_xboole\_0 k3\_modal\_1 \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_finset\_1 X0)\wedge(\neg v1\_xboole\_0 X1))\Rightarrow(\neg v1\_finset\_1 (k2\_zfmisc\_1 X0 X1)) \quad (15)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow((\neg v1\_xboole\_0 (k2\_trees\_1 X0))\wedge(v1\_trees\_1 (k2\_trees\_1 X0))) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge((\neg v1\_xboole\_0 X1)\wedge((m1\_subset\_1 X2 X0)\wedge(m1\_subset\_1 X3 X1))))\Rightarrow(m1\_subset\_1 (k1\_domain\_1 X0 X1 X2 X3) (k2\_zfmisc\_1 X0 X1)) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(X2 = X0)) \quad (18)$$

Assume the following.

$$\begin{aligned}
& k17\_modal\_1 = k8\_funcop\_1 (k2\_zfmisc\_1 k5\_numbers k5\_numbers) \\
& (k2\_trees\_1 k6\_numbers) (k1\_domain\_1 k5\_numbers k5\_numbers k6\_numbers \\
& \quad k6\_numbers)
\end{aligned} \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k3\_modal\_1) \Rightarrow (k16\_modal\_1 X0 = k8\_funcop\_1 \\
\quad k3\_modal\_1 (k2\_trees\_1 k6\_numbers) X0) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (v1\_finset\_1 X0) \tag{21}$$

**Theorem 1**  $\forall X0.(m1\_subset\_1 X0 k3\_modal\_1) \Rightarrow (k17\_modal\_1 \neq k16\_modal\_1 X0)$ .