

t17\_compos\_2  
(TMGCC7B9wHNDDKQKKvrRDPmZ1QgSLTwB3Dr)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k62\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k63\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.(X1 \in k9\_xtuple\_0 X0) \Rightarrow (k5\_relat\_1 X0 (k1\_tarski X1) = k16\_funcop\_1 X1 (k1\_funct\_1 X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((\neg v1\_xboole\_0 X0) \wedge (v1\_finset\_1 X0))))) \Rightarrow (k62\_valued\_1 X0 \in k1\_relset\_1 k5\_numbers X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1.(v1\_relat\_1 X1) \Rightarrow (k9\_xtuple\_0 (k6\_subset\_1 X1 (k5\_relat\_1 X1 X0)) = k6\_subset\_1 (k9\_xtuple\_0 X1) X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1.((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2.(X2 = k4\_xboole\_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarSKI X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((\neg v1\_xboole\_0 X0) \wedge (v1\_finset\_1 X0)))))) \Rightarrow (k63\_valued\_1 \\ X0 = k6\_subset\_1 X0 (k16\_funcop\_1 (k62\_valued\_1 X0) (k1\_funct\_1 \\ X0 (k62\_valued\_1 X0)))) \quad (8) \end{aligned}$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 \\ X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finset\_1 X0)))))) \Rightarrow (\neg k62\_valued\_1 \\ X0 \in k9\_xtuple\_0 (k63\_valued\_1 X0)) \end{aligned}$$