

t12\_sgraph1  
(TMW2sVNyKJmwWQ3n57ztPZ6MtEqmZTDHroF)

October 27, 2020

Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_sgraph1 : \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (X1 \in k2\_sgraph1 X0) \Leftrightarrow (((v1\_finset\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))) \wedge (\exists X2. \exists X3. (X2 \in X0) \wedge ((X3 \in X0) \wedge (X2 \neq X3) \wedge (X1 = k2\_tarski X2 X3)))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (4)$$

**Theorem 1**

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Rightarrow (r1\_tarski (k2\_sgraph1 X0) (k2\_sgraph1 X1))$$