

t4\_taxonom2  
(TMWsSyeHSzZ1EZhmTtNrcZvuAjMpyMu78ei)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_taxonom1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_partit1 : \iota \Rightarrow \iota$  be given. Let  $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

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.

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_taxonom1 X1 X0) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_partit1 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_eqrel\_1 X1 X0) \Rightarrow (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_partit1 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (m1\_eqrel\_1 X2 X0)) \quad (7)$$

**Theorem 1**

$$\forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. \forall X2. ((m1\_taxonom1 X1 X0) \wedge (X2 \in k3\_tarski X1)) \Rightarrow (r1\_tarski X2 X0))$$