

## t39\_toler\_1

(TMYYgn2U3u4K2JWVGvS8Cscv16MBgfKLtK7)

October 27, 2020

Let  $v1\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v3\_relat\_2 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1\_relat\_1 X2) \Rightarrow ((k4\_tarski X0 X1 \in X2) \Leftrightarrow (X1 \in k9\_relat\_1 X2 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((r1\_relset\_1 X0 X1 X2 X3) \Leftrightarrow (r1\_tarski X2 X3)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X2 X2))) \Rightarrow ((k4\_tarski X0 X1 \in X3) \Rightarrow ((X0 \in X2) \wedge (X1 \in X2))) \quad (3)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.(r1\_tarski X0 X1) \Leftrightarrow (\forall X2.\forall X3.(k4\_tarski X2 X3 \in X0) \Rightarrow (k4\_tarski X2 X3 \in X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v1\_relat\_1 X2) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_relat\_2 X1) \wedge ((v3\_relat\_2 X1) \wedge ((v1\_partfun1 \\ & X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow \\ & (\forall X2. ((v1\_relat\_2 X2) \wedge ((v3\_relat\_2 X2) \wedge ((v1\_partfun1 \\ & X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow \\ & ((\forall X3. (X3 \in X0) \Rightarrow (r1\_tarski (k9\_relat\_1 X1 X3) (k9\_relat\_1 \\ & X2 X3))) \Rightarrow (r1\_relset\_1 X0 X0 X1 X2))) \end{aligned}$$