

## t33\_toler\_1

(TMZ1NDW6stKRN6WyBVXwHp53beTKcXknNAy)

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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  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k3\_toler\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_toler\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_toler\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_2 X2) \wedge ((v1\_partfun1 X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow ( (X1 \in X0) \Rightarrow (k4\_tarski X1 X1 \in X2) ) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_2 X2) \wedge ((v3\_relat\_2 X2) \wedge ((v1\_partfun1 X2 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow (\forall X3.(X3 \in k9\_relat\_1 X2 X1) \Leftrightarrow (k4\_tarski X1 X3 \in X2)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_2 X1) \wedge ((v3\_relat\_2 X1) \wedge ((v1\_partfun1 X1 X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0)))))) \Rightarrow (\forall X2. \neg (X2 \in X0) \wedge (\forall X3. ((v1\_toler\_1 X3 X0 X1) \wedge (m1\_toler\_1 X3 X0 X1)) \Rightarrow (\neg X2 \in X3))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X2 X2))) \Rightarrow ((k4\_tarski X0 X1 \in X3) \Rightarrow ((X0 \in X2) \wedge (X1 \in X2))) \quad (4)$$

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.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_2 X1)\wedge((v3\_relat\_2 X1)\wedge((v1\_partfun1 \\ & X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))))))\Rightarrow \\ & (\forall X2.(X2 = k3\_toler\_1 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow(m1\_toler\_1 \\ & X3 X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_2 X1)\wedge((v3\_relat\_2 X1)\wedge((v1\_partfun1 \\ & X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))))))\Rightarrow \\ & (\forall X2.(m1\_toler\_1 X2 X0 X1)\Leftrightarrow(\forall X3.\forall X4.((X3 \in \\ & X2)\wedge(X4 \in X2))\Rightarrow(k4\_tarski X3 X4 \in X1))) \end{aligned} \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.((v1\_relat\_2 X1)\wedge((v3\_relat\_2 X1)\wedge((v1\_partfun1 \\ & X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))))))\Rightarrow \\ & (k3\_tarski (k3\_toler\_1 X0 X1) = X0) \end{aligned}$$