

# t4\_matrix\_2 (TMa- jZVCJ9b5NZx4NJDNHqpCPaHJL1U6M53c)

October 27, 2020

Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4\_tarski X0 X1 \in k2\_zfmisc\_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k3\_finseq\_1 (k3\_matrix\_2 X0 X1 X2 X3) = np\_2) \wedge ((k1\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3) = np\_2) \wedge (k2\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3) = k2\_zfmisc\_1 (k2\_finseq\_1 np\_2) (k2\_finseq\_1 np\_2))) \quad (2)$$

Assume the following.

$$(k2\_finseq\_1 np\_1 = k1\_tarski np\_1) \wedge (k2\_finseq\_1 np\_2 = k2\_tarski np\_1 np\_2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarski X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski X0 X1 = k2\_tarski X1 X0 \quad (5)$$

## Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4\_tarski np\_1 np\_1 \in k2\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3) \wedge (k4\_tarski np\_1 np\_2 \in k2\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3) \wedge (k4\_tarski np\_2 np\_1 \in k2\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3) \wedge (k4\_tarski np\_2 np\_2 \in k2\_matrix\_1 (k3\_matrix\_2 X0 X1 X2 X3))))$$