

# t4\_card\_3 (TMJMwTb- NPa956c9TCEWttZvCpR8UqwWuDMA)

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Let  $k2\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in k9\_xtuple\_0 (k16\_funcop\_1 X1 X2)) \Rightarrow (X0 = X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. X0 \in k9\_xtuple\_0 (k16\_funcop\_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k1\_funct\_1 (k16\_funcop\_1 X0 X1) X0 = X1 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 (k16\_funcop\_1 X0 X1)) \wedge (v1\_funct\_1 (k16\_funcop\_1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 = k2\_card\_3 X0) \Leftrightarrow ((k9\_xtuple\_0 X1 = k9\_xtuple\_0 X0) \wedge (\forall X2. (X2 \in k9\_xtuple\_0 X0) \Rightarrow (k1\_funct\_1 X1 X2 = k2\_zfmisc\_1 (k1\_funct\_1 X0 X2) (k1\_tarski X2)))))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (6)$$

## Theorem 1

$$\forall X0. \forall X1. k2\_card\_3 (k16\_funcop\_1 X0 X1) = k16\_funcop\_1 X0 (k2\_zfmisc\_1 X1 (k1\_tarski X0))$$