

# t28\_funct\_6 (TM- bqGHGqu5SNPsqX4AjkEiFLRfmV2PyQTux)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_funct\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_funct\_5 : \iota \Rightarrow \iota$  be given. Let  $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(X1 \in X0) \Rightarrow (k1\_funct\_1 (k2\_funcop\_1 X0 X2) X1 = X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow (\forall X3.((v1\_relat\_1 X3) \wedge (v1\_funct\_1 X3)) \Rightarrow (((X0 \in k9\_xtuple\_0 X2) \wedge ((X3 = k1\_funct\_1 X2 X0) \wedge (X1 \in k9\_xtuple\_0 X3))) \Rightarrow ((k4\_tarski X0 X1 \in k9\_xtuple\_0 (k2\_funct\_5 X2)) \wedge ((k1\_binop\_1 (k2\_funct\_5 X2) X0 X1 = k1\_funct\_1 X3 X1) \wedge (k1\_funct\_1 X3 X1 \in k10\_xtuple\_0 (k2\_funct\_5 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(k9\_xtuple\_0 (k2\_funcop\_1 X0 X1) = X0) \wedge (r1\_tarski (k10\_xtuple\_0 (k2\_funcop\_1 X0 X1)) (k1\_tarski X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k7\_funcop\_1 X0 X1 = k2\_funcop\_1 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1 (k2\_zfmisc\_1 X0 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v1\_funct\_1 (k7\_funcop\_1 X0 X1))\wedge((v1\_funct\_2 \\ & (k7\_funcop\_1 X0 X1) X0 (k1\_tarSKI X1))\wedge(m1\_subset\_1 (k7\_funcop\_1 \\ & X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 (k1\_tarSKI X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0)\wedge(v1\_funct\_1 X0))\Rightarrow(\forall X1.\forall X2. \\ & k5\_funct\_6 X0 X1 X2 = k1\_binop\_1 (k2\_funct\_5 X0) X1 X2) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.k2\_funcop\_1 X0 X1 = k2\_zfmisc\_1 X0 (k1\_tarSKI \\ & X1) \end{aligned} \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_relat\_1 X3)\wedge \\ & (v1\_funct\_1 X3))\Rightarrow(((X0 \in X1)\wedge(X2 \in k9\_xtuple\_0 X3))\Rightarrow(k5\_funct\_6 \\ & (k7\_funcop\_1 X1 X3) X0 X2 = k1\_funct\_1 X3 X2)) \end{aligned}$$