

# t3\_aofa\_i00 (TMcD- ctEke7GfwFJWDPQoX1tYYSSy8eWhRt2)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (k5\_relat\_1 (k1\_funct\_4 X0 X1) (k9\_xtuple\_0 X1) = X1)) \quad (1)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\forall X2.(r1\_tarski (k10\_xtuple\_0 X0) X2) \Rightarrow (k3\_relat\_1 X0 (k5\_relat\_1 X1 X2) = k3\_relat\_1 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1.(((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \wedge ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1))) \Rightarrow ((v1\_relat\_1 (k1\_funct\_4 X0 X1)) \wedge (v1\_funct\_1 (k1\_funct\_4 X0 X1))) \quad (3)$$

**Theorem 1**

$$\forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\forall X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((r1\_tarski (k10\_xtuple\_0 X2) (k9\_xtuple\_0 X1)) \Rightarrow (k3\_relat\_1 X2 (k1\_funct\_4 X0 X1) = k3\_relat\_1 X2 X1))))$$