

t51\_funct\_1  
 (TMa5XWrewMCFP3Lu5WWrfYSf8ypT8ndTSaP)

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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  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (k5\_relat\_1 (k5\_relat\_1 X2 X1) X0 = k5\_relat\_1 X2 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (k5\_relat\_1 (k5\_relat\_1 X2 X0) X1 = k5\_relat\_1 X2 X0)) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow ((k5\_relat\_1 (k5\_relat\_1 X2 X0) X1 = k5\_relat\_1 X2 X0) \wedge (k5\_relat\_1 (k5\_relat\_1 X2 X1) X0 = k5\_relat\_1 X2 X0)))$$