

# t2\_finseq\_4 (TM- SnGNJW81oiCpDB1X2KiWPdSvhYqp6N3mW)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r1\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k8\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. (r1\_finseq\_4 X0 X1) \Rightarrow (X1 \in k9\_xtuple\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. (r1\_finseq\_4 X0 X1) \Leftrightarrow (k8\_relat\_1 X0 (k9\_relat\_1 X0 X1) = k1\_tarski X1)) \quad (3)$$

## Theorem 1

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. (r1\_finseq\_4 X0 X1) \Leftrightarrow ((X1 \in k9\_xtuple\_0 X0) \wedge (k8\_relat\_1 X0 (k1\_tarski (k1\_funct\_1 X0 X1)) = k1\_tarski X1)))$$