

# t14\_finseq\_4 (TMXFHm- mvKVVB5GkCRrSCs1cyZPUTHj85RRc)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r2\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.(r1\_finseq\_4 \\ X0 X1) \Leftrightarrow ((X1 \in k9\_xtuple\_0 X0) \wedge (\forall X2. \neg (X2 \in k9\_xtuple\_0 X0) \wedge \\ ((X1 \neq X2) \wedge (k1\_funct\_1 X0 X1 = k1\_funct\_1 X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.(r2\_finseq\_4 \\ X0 X1) \Rightarrow (\forall X2.(X2 = k1\_finseq\_4 X0 X1) \Leftrightarrow ((X2 \in k9\_xtuple\_0 X0) \wedge \\ (k1\_funct\_1 X0 X2 = X1)))) \end{aligned} \quad (2)$$

## Theorem 1

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.(r2\_finseq\_4 \\ X0 X1) \Rightarrow (r1\_finseq\_4 X0 (k1\_finseq\_4 X0 X1))) \end{aligned}$$