

# t2\_hilbert2 (TMRD- HQY8iyrnkDfyDLJgYif9qQUwxFSXtNv)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & \quad (\forall X1.(k2\_finseq\_3 np\_1 (k7\_finseq\_1 (k9\_finseq\_1 X1) \\ X0) = X0) \wedge (k2\_finseq\_3 (k2\_nat\_1 (k3\_finseq\_1 X0) np\_1) (k7\_finseq\_1 \\ X0 (k9\_finseq\_1 X1)) = X0)) \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge ((v1\_funct\_1 \\ X2) \wedge (v1\_finseq\_1 X2))) \Rightarrow (\forall X3. ((v1\_relat\_1 X3) \wedge ((v1\_funct\_1 \\ X3) \wedge (v1\_finseq\_1 X3))) \Rightarrow ((k7\_finseq\_1 (k9\_finseq\_1 X0) X2 = k7\_finseq\_1 \\ (k9\_finseq\_1 X1) X3) \Rightarrow (X2 = X3))) \end{aligned}$$