

t40\_complsp2  
(TMN94fWSWsN83tpidDJTyyfwTex1o3AjLQF)

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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  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k45\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow \\ & \quad (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_valued\_0 \\ & \quad X1)))) \Rightarrow (\forall X2.((v1\_relat\_1 X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_valued\_0 \\ & \quad X2)))) \Rightarrow (k45\_valued\_1 X0 (k45\_valued\_1 X1 X2) = k1\_valued\_1 (k45\_valued\_1 \\ & \quad X0 X1) X2))) \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 \\ & \quad X0) \wedge (v1\_valued\_0 X0)))) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 \\ & \quad X1) \wedge ((v1\_finseq\_1 X1) \wedge (v1\_valued\_0 X1)))) \Rightarrow (\forall X2.((v1\_relat\_1 \\ & \quad X2) \wedge ((v1\_funct\_1 X2) \wedge ((v1\_finseq\_1 X2) \wedge (v1\_valued\_0 X2)))) \Rightarrow \\ & \quad (((k3\_finseq\_1 X0 = k3\_finseq\_1 X1) \wedge (k3\_finseq\_1 X1 = k3\_finseq\_1 \\ & \quad X2)) \Rightarrow (k45\_valued\_1 X0 (k45\_valued\_1 X1 X2) = k1\_valued\_1 (k45\_valued\_1 \\ & \quad X0 X1) X2)))) \end{aligned}$$