

t26\_pre\_poly  
(TMKVmSR9QQLuUaWF2xjw6VuvK7zihpingn2)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_pre\_poly : \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  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.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow ((v1\_pre\_poly \\ X0) \Leftrightarrow (\forall X1. (X1 \in k9\_xtuple\_0 X0) \Rightarrow ((v1\_relat\_1 (k1\_funct\_1 \\ X0 X1)) \wedge ((v1\_funct\_1 (k1\_funct\_1 X0 X1)) \wedge (v1\_finseq\_1 (k1\_funct\_1 \\ X0 X1))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. (X1 = \\ k10\_xtuple\_0 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X3 \in k9\_xtuple\_0 \\ X0) \wedge (X2 = k1\_funct\_1 X0 X3)))) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow ((v1\_pre\_poly \\ X0) \Leftrightarrow (\forall X1. (X1 \in k10\_xtuple\_0 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 \\ X1) \wedge (v1\_finseq\_1 X1)))))) \end{aligned}$$