

# t33\_polyform

(TMZBz2HMXfUxAQvM6iaTKYB1Hq1bEhTwcZC)

October 27, 2020

Let  $v2\_polyform : \iota \Rightarrow o$  be given. Let  $v3\_polyform : \iota \Rightarrow o$  be given. Let  $v4\_polyform : \iota \Rightarrow o$  be given. Let  $l1\_polyform : \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k10\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. 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  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k8\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ & ((v2\_funct\_1 X0) \Leftrightarrow (k5\_card\_1 (k10\_xtuple\_0 X0) = k3\_finseq\_1 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge ((v4\_polyform \\ & X0) \wedge (l1\_polyform X0)))) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (k10\_xtuple\_0 \\ & (k10\_polyform X0 X1) = k8\_polyform X0 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge ((v4\_polyform \\ & X0) \wedge (l1\_polyform X0)))) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (k3\_finseq\_1 \\ & (k10\_polyform X0 X1) = k11\_polyform X0 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge \\ & ((v4\_polyform X0) \wedge (l1\_polyform X0)))) \wedge (v1\_int\_1 X1)) \Rightarrow ((v1\_relat\_1 \\ & (k10\_polyform X0 X1)) \wedge ((v1\_funct\_1 (k10\_polyform X0 X1)) \wedge (v1\_finseq\_1 \\ & (k10\_polyform X0 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge ((v4\_polyform \\ & X0) \wedge (l1\_polyform X0)))) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (k11\_polyform \\ & X0 X1 = k5\_card\_1 (k8\_polyform X0 X1))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\forall X0.((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(v2\_funct\_1\ (k10\_polyform\ X0\ X1)))$$