

# t34\_polyform (TMKkb- VMwVCP9kmG5vAMLevYk7Wp3Mfzn1F6)

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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  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k11\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_polyform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k10\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  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  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k8\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge ((v4\_polyform \\ X0) \wedge (l1\_polyform X0)))) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (v2\_funct\_1 \\ (k10\_polyform X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v2\_polyform X0) \wedge ((v3\_polyform X0) \wedge ((v4\_polyform \\ X0) \wedge (l1\_polyform X0)))) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (k4\_finseq\_1 \\ (k10\_polyform X0 X1) = k2\_finseq\_1 (k11\_polyform X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow (( \\ X0 \in k2\_finseq\_1 X1) \Leftrightarrow ((r1\_xxreal\_0 np\_1 X0) \wedge (r1\_xxreal\_0 X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ (k4\_finseq\_1 X0 = k9\_xtuple\_0 X0) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\wedge(v1\_int\_1\ X1))\Rightarrow(v1\_finset\_1\ (k8\_polyform\ X0\ X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0)\Rightarrow(m1\_subset\_1\ (k5\_card\_1\ X0)\ k4\_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\wedge(v1\_int\_1\ X1))\Rightarrow((v1\_relat\_1\ (k10\_polyform\ X0\ X1))\wedge((v1\_funct\_1\ (k10\_polyform\ X0\ X1))\wedge(v1\_finseq\_1\ (k10\_polyform\ X0\ X1)))) \quad (7)$$

Assume the following.

$$\forall X0.((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(k11\_polyform\ X0\ X1 = k5\_card\_1\ (k8\_polyform\ X0\ X1))) \quad (8)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow((v2\_funct\_1\ X0)\Leftrightarrow(\forall X1.\forall X2.((X1 \in k9\_xtuple\_0\ X0)\wedge((X2 \in k9\_xtuple\_0\ X0)\wedge(k1\_funct\_1\ X0\ X1 = k1\_funct\_1\ X0\ X2))))\Rightarrow(X1 = X2)) \quad (9)$$

Assume the following.

$$\forall X0.((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(((r1\_xxreal\_0\ np\_1\ X2)\wedge(r1\_xxreal\_0\ X2\ (k11\_polyform\ X0\ X1))\Rightarrow(k15\_polyform\ X0\ X1\ X2 = k1\_funct\_1\ (k10\_polyform\ X0\ X1\ X2)))))) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \quad (11)$$

### Theorem 1

$$\forall X0.((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow(((r1\_xxreal\_0\ np\_1\ X3)\wedge((r1\_xxreal\_0\ X3\ (k11\_polyform\ X0\ X1))\wedge((r1\_xxreal\_0\ np\_1\ X2)\wedge((r1\_xxreal\_0\ X2\ (k11\_polyform\ X0\ X1))\wedge(k15\_polyform\ X0\ X1\ X3 = k15\_polyform\ X0\ X1\ X2))))))\Rightarrow(X2 = X3))))))$$