

# t55\_polyform

(TMMhUj1Hd6PXsAz4gtb4UqdzrdoGdtWsz9P)

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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  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k17\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k7\_bspace : \iota \Rightarrow \iota$  be given. Let  $k3\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k8\_polyform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g1\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_bspace : \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_bspace : \iota \Rightarrow \iota$  be given. Let  $k1\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_bspace : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k7\_polyform : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_polyform : \iota \Rightarrow \iota$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. k1\_card\_1 (k2\_struct\_0 (k7\_bspace X0)) = k3\_card\_2 \quad (1)$$

$$np\_2 (k1\_card\_1 X0)$$

Assume the following.

$$\forall X0. k1\_card\_1 (k1\_tarski X0) = np\_1 \quad (2)$$

Assume the following.

$$\forall X0. (v1\_card\_1 X0) \Rightarrow ((k3\_card\_2 X0 np\_1 = X0) \wedge (k3\_card\_2 \quad (3)$$

$$np\_1 X0 = np\_1))$$

Assume the following.

$$((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \quad (4)$$

$$((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers))$$

Assume the following.

$$\begin{aligned} & ((v2\_xreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(v1\_int\_1 \ X0) \Rightarrow ((v1\_xcmplx\_0 \ (k4\_xcmplx\_0 \ X0)) \wedge (v1\_int\_1 \ (k4\_xcmplx\_0 \ X0))) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v2\_polyform \ X0) \wedge ((v3\_polyform \ X0) \wedge \\ & ((v4\_polyform \ X0) \wedge (l1\_polyform \ X0)))) \wedge (v1\_int\_1 \ X1)) \Rightarrow (v1\_finset\_1 \\ & (k8\_polyform \ X0 \ X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.k7\_bspace \ X0 = g1\_vectsp\_1 \ k2\_bspace \ (k1\_zfmisc\_1 \ X0) \\ & (k5\_bspace \ X0) \ (k1\_subset\_1 \ X0) \ (k6\_bspace \ X0) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_polyform \ X0) \wedge ((v3\_polyform \ X0) \wedge ((v4\_polyform \\ & X0) \wedge (l1\_polyform \ X0)))) \Rightarrow (\forall X1.(v1\_int\_1 \ X1) \Rightarrow (\forall X2. \\ & (v1\_finset\_1 \ X2) \Rightarrow ((X2 = k8\_polyform \ X0 \ X1) \Leftrightarrow (((\neg r1\_xreal\_0 \ (k4\_xcmplx\_0 \\ & np\_1) \ X1) \Rightarrow (X2 = k1\_xboole\_0)) \wedge (((X1 = k4\_xcmplx\_0 \ np\_1) \Rightarrow (X2 = \\ & k1\_tarski \ k1\_xboole\_0)) \wedge ((\neg r1\_xreal\_0 \ X1 \ (k4\_xcmplx\_0 \ np\_1)) \wedge \\ & ((\neg r1\_xreal\_0 \ (k7\_polyform \ X0) \ X1) \wedge (X2 \neq k10\_xtuple\_0 \ (k1\_funct\_1 \\ & (u1\_polyform \ X0) \ (k2\_xcmplx\_0 \ X1 \ np\_1)))))) \wedge (((X1 = k7\_polyform \\ & X0) \Rightarrow (X2 = k1\_tarski \ X0)) \wedge ((\neg r1\_xreal\_0 \ X1 \ (k7\_polyform \ X0)) \Rightarrow \\ & (X2 = k1\_xboole\_0)))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_polyform \ X0) \wedge ((v3\_polyform \ X0) \wedge ((v4\_polyform \\ & X0) \wedge (l1\_polyform \ X0)))) \Rightarrow (\forall X1.(v1\_int\_1 \ X1) \Rightarrow (k17\_polyform \\ & X0 \ X1 = k7\_bspace \ (k8\_polyform \ X0 \ X1))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \quad (12)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0) \Rightarrow (v1\_card\_1 \ X0) \quad (13)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0) \Rightarrow (v1\_int\_1 \ X0) \quad (14)$$

**Theorem 1**

$$\forall X0.((v2\_polyform\ X0)\wedge((v3\_polyform\ X0)\wedge((v4\_polyform\ X0)\wedge(l1\_polyform\ X0))))\Rightarrow(k1\_card\_1\ (k2\_struct\_0\ (k17\_polyform\ X0\ (k4\_xcmplx\_0\ np\_1))) = np\_2)$$