

t58_pre_poly
(TMWG3pKyb8HEuw13zafnxuYbVRtMNDsfrdF)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $r3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $r6_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge \\ & (v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v4_valued_0 X1) \wedge (v2_pre_poly \\ & X1)))))) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 X0) \wedge \\ & (v1_funct_1 X2) \wedge ((v1_partfun1 X2 X0) \wedge ((v4_valued_0 X2) \wedge (v2_pre_poly \\ & X2)))))) \Rightarrow (((r3_pre_poly X0 X1 X2) \wedge (r6_pboole X0 (k12_pre_poly \\ & X0 X2 X1) (k16_pre_poly X0))) \Rightarrow (r6_pboole X0 X2 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 X0) \wedge \\ & (v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v4_valued_0 X1) \wedge (v2_pre_poly \\ & X1)))))) \Rightarrow (r6_pboole X0 (k12_pre_poly X0 (k16_pre_poly X0) X1) \\ & (k16_pre_poly X0)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_relat_1 (k8_funcop_1 k5_numbers X0 k6_numbers)) \wedge \\ & ((v4_relat_1 (k8_funcop_1 k5_numbers X0 k6_numbers) X0) \wedge ((v1_funct_1 \\ & (k8_funcop_1 k5_numbers X0 k6_numbers)) \wedge ((v1_partfun1 (k8_funcop_1 \\ & k5_numbers X0 k6_numbers) X0) \wedge ((v4_valued_0 (k8_funcop_1 k5_numbers \\ & X0 k6_numbers)) \wedge (v2_pre_poly (k8_funcop_1 k5_numbers X0 k6_numbers)))))) \end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.k16_pre_poly X0 = k8_funcop_1 k5_numbers X0 k6_numbers \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 X0)\wedge \\ (v1_funct_1 X1)\wedge((v1_partfun1 X1 X0)\wedge((v4_valued_0 X1)\wedge(v2_pre_poly \\ X1))))))\Rightarrow((r3_pre_poly X0 X1 (k16_pre_poly X0))\Rightarrow(r6_pboole X0 \\ (k16_pre_poly X0) X1)) \end{aligned}$$