

t17_polynom7

(TMSLCB4v8Lk51Q37cKhrPqQxLFjZswecaGD)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $k3_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k15_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\
& (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) \\
& (u1_struct_0 X1)) \wedge ((v3_polynom7 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1)))))) \Rightarrow (r2_funct_2 \\
& (k15_pre_poly X0) (u1_struct_0 X1) (k1_polynom7 X0 X1) (k3_polynom7 \\
& X0 X1 X2) (k2_polynom7 X0 X1 X2)) X2))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\
& ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 \\
& X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 \\
& X3) \Leftrightarrow (X2 = X3))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ & (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) \\ & (u1_struct_0 X1)) \wedge ((v4_polynom7 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1)))))) \Rightarrow ((k2_polynom7 \\ & X0 X1 X2 = k16_pre_poly X0) \wedge (k3_polynom7 X0 X1 X2 = k3_polynom1 X0 \\ & X1 X2 (k16_pre_poly X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X1) \wedge (l2_struct_0 \\ & X1)) \wedge (m1_subset_1 X2 (u1_struct_0 X1))) \Rightarrow ((v1_funct_1 (k4_polynom7 \\ & X0 X1 X2)) \wedge ((v1_funct_2 (k4_polynom7 X0 X1 X2) (k15_pre_poly X0) \\ & (u1_struct_0 X1)) \wedge (v4_polynom7 (k4_polynom7 X0 X1 X2) X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ & ((v1_funct_1 (k7_polynom1 X0 X1)) \wedge ((v1_funct_2 (k7_polynom1 \\ & X0 X1) (k15_pre_poly X0) (u1_struct_0 X1)) \wedge (v4_polynom7 (k7_polynom1 \\ & X0 X1) X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ & ((v1_funct_1 (k7_polynom1 X0 X1)) \wedge ((v1_funct_2 (k7_polynom1 \\ & X0 X1) (k15_pre_poly X0) (u1_struct_0 X1)) \wedge (m1_subset_1 (k7_polynom1 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 \\ & X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X1) \wedge (l2_struct_0 \\ & X1)) \wedge (m1_subset_1 X2 (u1_struct_0 X1))) \Rightarrow ((v1_funct_1 (k4_polynom7 \\ & X0 X1 X2)) \wedge ((v1_funct_2 (k4_polynom7 X0 X1 X2) (k15_pre_poly X0) \\ & (u1_struct_0 X1)) \wedge (m1_subset_1 (k4_polynom7 X0 X1 X2) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X1) \wedge (l2_struct_0 \\ & X1)) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) (u1_struct_0 \\ & X1)) \wedge ((v3_polynom7 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k15_pre_poly X0) (u1_struct_0 X1))))))))) \Rightarrow (m1_subset_1 (k3_polynom7 \\ & X0 X1 X2) (u1_struct_0 X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X1)\wedge(l2_struct_0 \\ & X1))\wedge((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k15_pre_poly X0) (u1_struct_0 \\ & X1))\wedge((v3_polynom7 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k15_pre_poly X0) (u1_struct_0 X1))))))))\Rightarrow((v1_relat_1 (k2_polynom7 \\ & X0 X1 X2))\wedge((v4_relat_1 (k2_polynom7 X0 X1 X2) X0)\wedge((v1_funct_1 \\ & (k2_polynom7 X0 X1 X2))\wedge((v1_partfun1 (k2_polynom7 X0 X1 X2) X0)\wedge \\ & ((v4_valued_0 (k2_polynom7 X0 X1 X2))\wedge(v2_pre_poly (k2_polynom7 \\ & X0 X1 X2))))))) \end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2_struct_0 \\ & X1)\wedge(l2_struct_0 X1))\wedge((m1_subset_1 X2 (u1_struct_0 X1))\wedge((\\ & v1_relat_1 X3)\wedge((v4_relat_1 X3 X0)\wedge((v1_funct_1 X3)\wedge((v1_partfun1 \\ & X3 X0)\wedge((v4_valued_0 X3)\wedge(v2_pre_poly X3))))))))\Rightarrow((v1_funct_1 \\ & (k1_polynom7 X0 X1 X2 X3))\wedge((v1_funct_2 (k1_polynom7 X0 X1 X2 X3) \\ & (k15_pre_poly X0) (u1_struct_0 X1))\wedge((v3_polynom7 (k1_polynom7 \\ & X0 X1 X2 X3) X0 X1)\wedge(m1_subset_1 (k1_polynom7 X0 X1 X2 X3) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1))))))) \end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge(l2_struct_0 X1))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1))\Rightarrow(k4_polynom7 X0 \\ & X1 X2 = k15_funct_7 (k15_pre_poly X0) (u1_struct_0 X1) (k7_polynom1 \\ & X0 X1) (k16_pre_poly X0) X2)) \end{aligned} \tag{11}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge(l2_struct_0 X1))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1))\Rightarrow(\forall X3.((\\ & v1_relat_1 X3)\wedge((v4_relat_1 X3 X0)\wedge((v1_funct_1 X3)\wedge((v1_partfun1 \\ & X3 X0)\wedge((v4_valued_0 X3)\wedge(v2_pre_poly X3))))))))\Rightarrow(k1_polynom7 \\ & X0 X1 X2 X3 = k15_funct_7 (k15_pre_poly X0) (u1_struct_0 X1) (k7_polynom1 \\ & X0 X1) X3 X2)) \end{aligned} \tag{12}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1)\wedge(l2_struct_0 X1))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\ & X0) (u1_struct_0 X1))))\Rightarrow(((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k15_pre_poly \\ & X0) (u1_struct_0 X1))\wedge(v4_polynom7 X2 X0 X1)))\Rightarrow((v1_funct_1 X2)\wedge \\ & ((v1_funct_2 X2 (k15_pre_poly X0) (u1_struct_0 X1))\wedge(v3_polynom7 \\ & X2 X0 X1)))))) \end{aligned} \tag{13}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ & (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) \\ & (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k15_pre_poly X0) (u1_struct_0 X1)))))) \Rightarrow (((v1_funct_1 X2) \wedge \\ & (v1_funct_2 X2 (k15_pre_poly X0) (u1_struct_0 X1)) \wedge ((v4_polynom7 \\ & X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\ & X0) (u1_struct_0 X1)))))) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (u1_struct_0 \\ & X1)) \wedge (r2_funct_2 (k15_pre_poly X0) (u1_struct_0 X1) X2 (k4_polynom7 \\ & X0 X1 X3)))))) \end{aligned}$$