t18_polynom7 (TMLFrEcvAtjH6Ur5fZWoHjGiE5WWQjTbVV7)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ 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 $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_funct\_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k15\_funct\_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l4\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k7\_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(X1 \in X0) \Rightarrow (k1\_funct\_1\ (k2\_funcop\_1\ X0\ X2)\ X1 = X2) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.\forall X2.\ \forall X3.(X2 \neq X3) \Rightarrow (k1\_funct\_1\ (k2\_funct\_7\ X0\ X2\ X1)\ X3 = k1\_funct\_1\ X0\ X3)) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.\forall X2.\ (X2 \in k9\_xtuple\_0\ X0) \Rightarrow (k1\_funct\_1\ (k2\_funct\_7\ X0\ X2\ X1)\ X2 = X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee (X0 \in X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(k9\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1) = X0)\wedge(r1\_tarski\ (k10\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1))\ (k1\_tarski\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X2\ X0))\Rightarrow(k8\_funcop\_1\ X0\ X1\ X2 = k2\_funcop\_1\ X1\ X2) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2\_struct\_0\ X1)\wedge(l1\_struct\_0\ X1))\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))))))\wedge((v1\_relat\_1\ X3)\wedge((v4\_relat\_1\ X3\ X0)\wedge((v1\_funct\_1\ X3)\wedge((v1\_partfun1\ X3\ X0)\wedge((v4\_valued\_0\ X3)\wedge(v2\_pre\_poly\ X3)))))))\Rightarrow(k3\_polynom1\ X0\ X1\ X2\ X3 = k1\_funct\_1\ X2\ X3) \tag{7}$$

Assume the following.

$$\forall X0.k15\_pre\_poly\ X0 = k14\_pre\_poly\ X0 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(m1\_subset\_1\ X4\ X1))\Rightarrow(k15\_funct\_7\ X0\ X1\ X2\ X3\ X4 = k2\_funct\_7\ X2\ X3\ X4) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\Rightarrow (\exists X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))))\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ (k15\_pre\_poly\ X0))\wedge((v5\_relat\_1\ X2\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ X2)\wedge((\neg v1\_xboole\_0\ X2)\wedge((v1\_partfun1\ X2\ (k15\_pre\_poly\ X0))\wedge((v1\_funct\_2\ X2\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(v1\_polynom1\ X2\ (k15\_pre\_poly\ X0)\ X1)))))))) \tag{10}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k14\_pre\_poly\ X0) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Rightarrow(m1\_subset\_1\ X2\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.(l5\_algstr\_0\ X0)\Rightarrow((l4\_algstr\_0\ X0)\wedge(l4\_struct\_0\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.(l4\_struct\_0\ X0)\Rightarrow((l2\_struct\_0\ X0)\wedge(l3\_struct\_0\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.(l4\_algstr\_0\ X0)\Rightarrow((l3\_struct\_0\ X0)\wedge(l3\_algstr\_0\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(l3\_struct\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\Rightarrow ((v1\_funct\_1\ (k7\_polynom1\ X0\ X1))\wedge((v1\_funct\_2\ (k7\_polynom1\ X0\ X1)\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ (k7\_polynom1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1)))))) \tag{17}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0)\Rightarrow(m1\_subset\_1\ (k4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)))\Rightarrow((v1\_funct\_1\ (k4\_polynom7\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k4\_polynom7\ X0\ X1\ X2)\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ (k4\_polynom7\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1)))))) \tag{19}$$

Assume the following.

$$\forall X0.m2\_subset\_1\ (k16\_pre\_poly\ X0)\ (k14\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0) \tag{20}$$

Assume the following.

$$\forall X0.m1\_subset\_1\ (k15\_pre\_poly\ X0)\ (k1\_zfmisc\_1\ (k14\_pre\_poly\ X0)) \tag{21}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow(k4\_polynom7\ X0\ X1\ X2 = k15\_funct\_7\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1)\ (k7\_polynom1\ X0\ X1)\ (k16\_pre\_poly\ X0)\ X2)) \tag{22}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\Rightarrow (k7\_polynom1\ X0\ X1 = k8\_funcop\_1\ (u1\_struct\_0\ X1)\ (k15\_pre\_poly\ X0)\ (k4\_struct\_0\ X1)) \tag{23}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k14\_pre\_poly\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ X0)\wedge((v1\_funct\_1\ X2)\wedge((v1\_partfun1\ X2\ X0)\wedge((v4\_valued\_0\ X2)\wedge(v2\_pre\_poly\ X2))))))) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_xboole\_0\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ X0)))\Rightarrow(v1\_xboole\_0\ X2)) \tag{25}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{26}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{27}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l5\_algstr\_0\ X1))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow((k3\_polynom1\ X0\ X1\ (k4\_polynom7\ X0\ X1\ X2)\ (k16\_pre\_poly\ X0) = X2)\wedge(\forall X3.((v1\_relat\_1\ X3)\wedge((v4\_relat\_1\ X3\ X0)\wedge((v1\_funct\_1\ X3)\wedge((v1\_partfun1\ X3\ X0)\wedge((v4\_valued\_0\ X3)\wedge(v2\_pre\_poly\ X3))))))\Rightarrow((X3\neq k16\_pre\_poly\ X0)\Rightarrow(k3\_polynom1\ X0\ X1\ (k4\_polynom7\ X0\ X1\ X2)\ X3 = k4\_struct\_0\ X1)))))$$