# t25_termord (TMPr46YqcvPsEdz6myYEbK6txkjZCwAic81)

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Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_2 : \iota \Rightarrow o$ be given. Let $v4\_relat\_2 : \iota \Rightarrow o$ be given. Let $v6\_relat\_2 : \iota \Rightarrow o$ be given. Let $v8\_relat\_2 : \iota \Rightarrow o$ 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 $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r6\_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_pre\_poly : \iota \Rightarrow \iota$ be given. Let $k4\_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r8\_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l2\_struct\_0\ X1)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)) \Rightarrow ((k2\_polynom7\ X0\ X1\ (k4\_polynom7\ X0\ X1\ X2) = k16\_pre\_poly\ X0) \wedge (k3\_polynom7\ X0\ X1\ (k4\_polynom7\ X0\ X1\ X2) = X2))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ (k15\_pre\_poly\ X0)) \wedge ((v1\_relat\_2\ X1) \wedge ((v4\_relat\_2\ X1) \wedge ((v6\_relat\_2\ X1) \wedge ((v8\_relat\_2\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0))))))))) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge (l2\_struct\_0\ X2)) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2)) \wedge ((v3\_polynom7\ X3\ X0\ X2) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2))))))) \Rightarrow ((r6\_pboole\ X0\ (k3\_termord\ X0\ X1\ X2\ X3)\ (k2\_polynom7\ X0\ X2\ X3)) \wedge ((k4\_termord\ X0\ X1\ X2\ X3 = k3\_polynom7\ X0\ X2\ X3) \wedge (r8\_pboole\ (k15\_pre\_poly\ X0)\ (k5\_termord\ X0\ X1\ X2\ X3)\ X3)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)))\Rightarrow((v1\_funct\_1\ (k4\_polynom7\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k4\_polynom7\ X0\ X1\ X2)\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(v4\_polynom7\ (k4\_polynom7\ X0\ X1\ X2)\ X0\ X1))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)))\Rightarrow((v1\_funct\_1\ (k4\_polynom7\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k4\_polynom7\ X0\ X1\ X2)\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(m1\_subset\_1\ (k4\_polynom7\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l2\_struct\_0\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))))\Rightarrow(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(v4\_polynom7\ X2\ X0\ X1)))\Rightarrow((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge(v3\_polynom7\ X2\ X0\ X1))))) \tag{5}$$

**Theorem 1**

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.((v1\_partfun1\ X1\ (k15\_pre\_poly\ X0))\wedge((v1\_relat\_2\ X1)\wedge((v4\_relat\_2\ X1)\wedge((v6\_relat\_2\ X1)\wedge((v8\_relat\_2\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0))))))))))\Rightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge(l2\_struct\_0\ X2))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X2))\Rightarrow((r6\_pboole\ X0\ (k3\_termord\ X0\ X1\ X2\ (k4\_polynom7\ X0\ X2\ X3))\ (k16\_pre\_poly\ X0))\wedge(k4\_termord\ X0\ X1\ X2\ (k4\_polynom7\ X0\ X2\ X3) = X3)))))$$