

t24_termord

(TMcfcrU3twdXQRY2KFYVoKejkmS1aGx4qXg)

October 27, 2020

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 $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $v4_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r6_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Let $k4_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $r8_pboole : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_termord : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v1_partfun1 X1 (k15_pre_poly \\ & X0)) \wedge ((v1_relat.2 X1) \wedge ((v4_relat.2 X1) \wedge ((v6_relat.2 X1) \wedge ((\\ & v8_relat.2 X1) \wedge (m1_subset.1 X1 (k1_zfmisc.1 (k2_zfmisc.1 (k15_pre_poly \\ & X0) (k15_pre_poly X0)))))))))) \Rightarrow (\forall X2.((\neg v2_struct.0 X2) \wedge \\ & (l2_struct.0 X2)) \Rightarrow (\forall X3.((v1_funct.1 X3) \wedge ((v1_funct.2 \\ & X3 (k15_pre_poly X0) (u1_struct.0 X2)) \wedge ((v3_polynom7 X3 X0 X2) \wedge \\ & (m1_subset.1 X3 (k1_zfmisc.1 (k2_zfmisc.1 (k15_pre_poly X0) (\\ & u1_struct.0 X2)))))) \Rightarrow ((r6_pboole X0 (k3_termord X0 X1 X2 X3) (\\ & k2_polynom7 X0 X2 X3)) \wedge ((k4_termord X0 X1 X2 X3 = k3_polynom7 X0 X2 \\ & X3) \wedge (r8_pboole (k15_pre_poly X0) (k5_termord X0 X1 X2 X3) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct.0 X1) \wedge (l2_struct.0 X1)) \Rightarrow \\ & (\forall X2.((v1_funct.1 X2) \wedge ((v1_funct.2 X2 (k15_pre_poly X0) \\ & (u1_struct.0 X1)) \wedge ((v4_polynom7 X2 X0 X1) \wedge (m1_subset.1 X2 (k1_zfmisc.1 \\ & (k2_zfmisc.1 (k15_pre_poly X0) (u1_struct.0 X1)))))) \Rightarrow ((k2_polynom7 \\ & X0 X1 X2 = k16_pre_poly X0) \wedge (k3_polynom7 X0 X1 X2 = k3_polynom1 X0 \\ & X1 X2 (k16_pre_poly X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\
& (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\
& X0) (u1_struct_0 X1)))) \Rightarrow (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly \\
& X0) (u1_struct_0 X1)) \wedge (v4_polynom7 X2 X0 X1))) \Rightarrow ((v1_funct_1 X2) \wedge \\
& ((v1_funct_2 X2 (k15_pre_poly X0) (u1_struct_0 X1)) \wedge (v3_polynom7 \\
& X2 X0 X1))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. ((v1_partfun1 X1 (k15_pre_poly \\
& X0)) \wedge ((v1_relat_2 X1) \wedge ((v4_relat_2 X1) \wedge ((v6_relat_2 X1) \wedge ((\\
& v8_relat_2 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\
& X0) (k15_pre_poly X0)))))))))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge \\
& (l2_struct_0 X2)) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge ((v1_funct_2 \\
& X3 (k15_pre_poly X0) (u1_struct_0 X2)) \wedge ((v4_polynom7 X3 X0 X2) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly X0) (\\
& u1_struct_0 X2)))))))))) \Rightarrow ((r6_pboole X0 (k3_termord X0 X1 X2 X3) (\\
& k16_pre_poly X0)) \wedge (k4_termord X0 X1 X2 X3 = k3_polynom1 X0 X2 X3 (\\
& k16_pre_poly X0))))))
\end{aligned}$$