

t31_genealg1

(TMS31sEPJiiRV9Mk8kPfst8QLBnHLtxgBm3)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $m1_genealg1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k7_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.((\neg v1_xboole_0 X4) \wedge \\
& ((v1_relat_1 X4) \wedge ((v2_relat_1 X4) \wedge ((v1_funct_1 X4) \wedge (v1_finseq_1 \\
& X4)))))) \Rightarrow (\forall X5.(m1_genealg1 X5 X4) \Rightarrow (\forall X6.(m1_genealg1 \\
& X6 X4) \Rightarrow ((k10_genealg1 X4 X5 X6 k6_numbers X0 X1 X2 = k9_genealg1 X4 \\
& X6 X5 X0 X1 X2) \wedge ((k10_genealg1 X4 X5 X6 X3 k6_numbers X1 X2 = k9_genealg1 \\
& X4 X6 X5 X3 X1 X2) \wedge ((k10_genealg1 X4 X5 X6 X3 X0 k6_numbers X2 = k9_genealg1 \\
& X4 X6 X5 X3 X0 X2) \wedge (k10_genealg1 X4 X5 X6 X3 X0 X1 k6_numbers = k9_genealg1 \\
& X4 X6 X5 X3 X0 X1))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& ((\neg v1_xboole_0 X3) \wedge ((v1_relat_1 X3) \wedge ((v2_relat_1 X3) \wedge ((v1_funct_1 \\
& X3) \wedge (v1_finseq_1 X3)))))) \Rightarrow (\forall X4.(m1_genealg1 X4 X3) \Rightarrow (\forall X5. \\
& (m1_genealg1 X5 X3) \Rightarrow ((k9_genealg1 X3 X4 X5 X0 X0 X1 = k7_genealg1 \\
& X3 X4 X5 X1) \wedge ((k9_genealg1 X3 X4 X5 X0 X2 X0 = k7_genealg1 X3 X4 X5 X2) \wedge \\
& (k9_genealg1 X3 X4 X5 X0 X2 X2 = k7_genealg1 X3 X4 X5 X0))))))
\end{aligned} \tag{2}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{3}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.((\neg v1_xboole_0 X4) \wedge \\ & ((v1_relat_1 X4) \wedge ((v2_relat_1 X4) \wedge ((v1_funct_1 X4) \wedge (v1_finseq_1 \\ & X4)))))) \Rightarrow (\forall X5.(m1_genealg1 X5 X4) \Rightarrow (\forall X6.(m1_genealg1 \\ & X6 X4) \Rightarrow ((k10_genealg1 X4 X5 X6 X0 k6_numbers k6_numbers k6_numbers = \\ & k7_genealg1 X4 X6 X5 X0) \wedge ((k10_genealg1 X4 X5 X6 k6_numbers X1 k6_numbers \\ & k6_numbers = k7_genealg1 X4 X6 X5 X1) \wedge ((k10_genealg1 X4 X5 X6 k6_numbers \\ & k6_numbers X2 k6_numbers = k7_genealg1 X4 X6 X5 X2) \wedge (k10_genealg1 \\ & X4 X5 X6 k6_numbers k6_numbers k6_numbers X3 = k7_genealg1 X4 X6 X5 \\ & X3)))))))))) \end{aligned}$$