

t44_genealg1 (TMJye-
VukXL1DPeCKVtxUhyP2YxZZCUbRdRA)

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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 $k11_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k7_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & \quad X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\
 & \quad (\forall X5.((\neg v1_xboole_0 X5) \wedge ((v1_relat_1 X5) \wedge ((v2_relat_1 \\
 & \quad X5) \wedge ((v1_funct_1 X5) \wedge (v1_finseq_1 X5)))))) \Rightarrow (\forall X6.(m1_genealg1 \\
 & \quad X6 X5) \Rightarrow (\forall X7.(m1_genealg1 X7 X5) \Rightarrow ((k11_genealg1 X5 X6 X7 \\
 & \quad k6_numbers X0 X1 X2 X3 = k10_genealg1 X5 X7 X6 X0 X1 X2 X3) \wedge ((k11_genealg1 \\
 & \quad X5 X6 X7 X4 k6_numbers X1 X2 X3 = k10_genealg1 X5 X7 X6 X4 X1 X2 X3) \wedge ((\\
 & \quad k11_genealg1 X5 X6 X7 X4 X0 k6_numbers X2 X3 = k10_genealg1 X5 X7 X6 \\
 & \quad X4 X0 X2 X3) \wedge ((k11_genealg1 X5 X6 X7 X4 X0 X1 k6_numbers X3 = k10_genealg1 \\
 & \quad X5 X7 X6 X4 X0 X1 X3) \wedge ((k11_genealg1 X5 X6 X7 X4 X0 X1 X2 k6_numbers = k10_genealg1 \\
 & \quad X5 X7 X6 X4 X0 X1 X2)))))))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.((\neg v1_xboole_0 X4) \wedge \\
& ((v1_relat_1 X4) \wedge ((v2_relat_1 X4) \wedge ((v1_funct_1 X4) \wedge (v1_finseq_1 \\
& X4)))))) \Rightarrow (\forall X5.(m1_genealg1 X5 X4) \Rightarrow (\forall X6.(m1_genealg1 \\
& X6 X4) \Rightarrow ((k10_genealg1 X4 X5 X6 X0 k6_numbers k6_numbers k6_numbers = \\
& k7_genealg1 X4 X6 X5 X0) \wedge ((k10_genealg1 X4 X5 X6 k6_numbers X1 k6_numbers \\
& k6_numbers = k7_genealg1 X4 X6 X5 X1) \wedge ((k10_genealg1 X4 X5 X6 k6_numbers \\
& k6_numbers X2 k6_numbers = k7_genealg1 X4 X6 X5 X2) \wedge (k10_genealg1 \\
& X4 X5 X6 k6_numbers k6_numbers k6_numbers X3 = k7_genealg1 X4 X6 X5 \\
& X3))))))))))
\end{aligned} \tag{2}$$

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.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\
& (\forall X5.((\neg v1_xboole_0 X5) \wedge ((v1_relat_1 X5) \wedge ((v2_relat_1 \\
& X5) \wedge ((v1_funct_1 X5) \wedge (v1_finseq_1 X5)))))) \Rightarrow (\forall X6.(m1_genealg1 \\
& X6 X5) \Rightarrow (\forall X7.(m1_genealg1 X7 X5) \Rightarrow ((k11_genealg1 X5 X6 X7 \\
& k6_numbers k6_numbers k6_numbers k6_numbers X0 = k7_genealg1 X5 \\
& X6 X7 X0) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers k6_numbers k6_numbers \\
& X1 k6_numbers = k7_genealg1 X5 X6 X7 X1) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers \\
& k6_numbers X2 k6_numbers k6_numbers = k7_genealg1 X5 X6 X7 X2) \wedge \\
& (k11_genealg1 X5 X6 X7 k6_numbers X3 k6_numbers k6_numbers k6_numbers = \\
& k7_genealg1 X5 X6 X7 X3) \wedge (k11_genealg1 X5 X6 X7 X4 k6_numbers k6_numbers \\
& k6_numbers k6_numbers = k7_genealg1 X5 X6 X7 X4))))))))))
\end{aligned}$$