

t43_genealg1
(TMTvtpKgzPmAzD1i4ijQNYTd4LspFFh3z7c)

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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 $k11_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k8_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& \quad X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\
& \quad (\forall X5.((\neg v1_xboole_0 X5) \wedge ((v1_relat_1 X5) \wedge ((v2_relat_1 \\
& \quad X5) \wedge ((v1_funct_1 X5) \wedge (v1_finseq_1 X5)))))) \Rightarrow (\forall X6.(m1_genealg1 \\
& \quad X6 X5) \Rightarrow (\forall X7.(m1_genealg1 X7 X5) \Rightarrow ((k11_genealg1 X5 X6 X7 \\
& k6_numbers k6_numbers X0 X1 X2 = k9_genealg1 X5 X6 X7 X0 X1 X2) \wedge ((k11_genealg1 \\
& \quad X5 X6 X7 k6_numbers X3 k6_numbers X1 X2 = k9_genealg1 X5 X6 X7 X3 X1 X2) \wedge \\
& \quad ((k11_genealg1 X5 X6 X7 k6_numbers X3 X0 k6_numbers X2 = k9_genealg1 \\
& \quad X5 X6 X7 X3 X0 X2) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers X3 X0 X1 k6_numbers = \\
& \quad k9_genealg1 X5 X6 X7 X3 X0 X1) \wedge ((k11_genealg1 X5 X6 X7 X4 k6_numbers \\
& \quad k6_numbers X1 X2 = k9_genealg1 X5 X6 X7 X4 X1 X2) \wedge ((k11_genealg1 X5 \\
& \quad X6 X7 X4 k6_numbers X0 k6_numbers X2 = k9_genealg1 X5 X6 X7 X4 X0 X2) \wedge \\
& \quad ((k11_genealg1 X5 X6 X7 X4 k6_numbers X0 X1 k6_numbers = k9_genealg1 \\
& \quad X5 X6 X7 X4 X0 X1) \wedge ((k11_genealg1 X5 X6 X7 X4 X3 k6_numbers k6_numbers \\
& \quad X2 = k9_genealg1 X5 X6 X7 X4 X3 X2) \wedge ((k11_genealg1 X5 X6 X7 X4 X3 k6_numbers \\
& \quad X1 k6_numbers = k9_genealg1 X5 X6 X7 X4 X3 X1) \wedge ((k11_genealg1 X5 X6 \\
& \quad X7 X4 X3 X0 k6_numbers k6_numbers = k9_genealg1 X5 X6 X7 X4 X3 X0))))))))))))) \\
& \hspace{15em} (1)
\end{aligned}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \hspace{15em} (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& ((\neg v1_xboole_0 X3) \wedge ((v1_relat_1 X3) \wedge ((v2_relat_1 X3) \wedge ((v1_funct_1 \\
& X3) \wedge (v1_finseq_1 X3)))))) \Rightarrow (\forall X4.(m1_genealg1 X4 X3) \Rightarrow (\forall X5. \\
& (m1_genealg1 X5 X3) \Rightarrow ((k9_genealg1 X3 X4 X5 k6_numbers X0 X1 = k8_genealg1 \\
& X3 X5 X4 X0 X1) \wedge ((k9_genealg1 X3 X4 X5 X2 k6_numbers X1 = k8_genealg1 \\
& X3 X5 X4 X2 X1) \wedge (k9_genealg1 X3 X4 X5 X2 X0 k6_numbers = k8_genealg1 \\
& X3 X5 X4 X2 X0)))))))))
\end{aligned} \tag{3}$$

Assume the following.

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

Assume the following.

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

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\
& (\forall X5.((\neg v1_xboole_0 X5) \wedge ((v1_relat_1 X5) \wedge ((v2_relat_1 \\
& X5) \wedge ((v1_funct_1 X5) \wedge (v1_finseq_1 X5)))))) \Rightarrow (\forall X6.(m1_genealg1 \\
& X6 X5) \Rightarrow (\forall X7.(m1_genealg1 X7 X5) \Rightarrow ((k11_genealg1 X5 X6 X7 \\
& k6_numbers k6_numbers k6_numbers X0 X1 = k8_genealg1 X5 X7 X6 X0 X1) \wedge \\
& ((k11_genealg1 X5 X6 X7 k6_numbers k6_numbers X2 k6_numbers X1 = \\
& k8_genealg1 X5 X7 X6 X2 X1) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers k6_numbers \\
& X2 X0 k6_numbers = k8_genealg1 X5 X7 X6 X2 X0) \wedge ((k11_genealg1 X5 X6 \\
& X7 k6_numbers X3 k6_numbers k6_numbers X1 = k8_genealg1 X5 X7 X6 X3 \\
& X1) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers X3 k6_numbers X0 k6_numbers = \\
& k8_genealg1 X5 X7 X6 X3 X0) \wedge ((k11_genealg1 X5 X6 X7 k6_numbers X3 \\
& X2 k6_numbers k6_numbers = k8_genealg1 X5 X7 X6 X3 X2) \wedge ((k11_genealg1 \\
& X5 X6 X7 X4 k6_numbers k6_numbers k6_numbers X1 = k8_genealg1 X5 X7 \\
& X6 X4 X1) \wedge ((k11_genealg1 X5 X6 X7 X4 k6_numbers k6_numbers X0 k6_numbers = \\
& k8_genealg1 X5 X7 X6 X4 X0) \wedge ((k11_genealg1 X5 X6 X7 X4 k6_numbers \\
& X2 k6_numbers k6_numbers = k8_genealg1 X5 X7 X6 X4 X2) \wedge (k11_genealg1 \\
& X5 X6 X7 X4 X3 k6_numbers k6_numbers k6_numbers = k8_genealg1 X5 X7 \\
& X6 X4 X3)))))))))))))
\end{aligned}$$