

t22_genealg1 (TMN- mJoTS3WrFUJbgWwKbAJBNHn7z6sRyXob)

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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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k9_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & \quad X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
 & \quad ((\neg v1_xboole_0 X3) \wedge ((v1_relat_1 X3) \wedge ((v2_relat_1 X3) \wedge ((v1_funct_1 \\
 & \quad \quad X3) \wedge (v1_finseq_1 X3)))))) \Rightarrow (\forall X4.(m1_genealg1 X4 X3) \Rightarrow (\forall X5. \\
 & \quad (m1_genealg1 X5 X3) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X4) X0) \Rightarrow (k9_genealg1 \\
 & \quad \quad X3 X4 X5 X0 X1 X2 = k8_genealg1 X3 X4 X5 X1 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & \quad X1 k5_numbers) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 \\
 & \quad X2) \wedge ((v2_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 X2)))))) \Rightarrow \\
 & \quad (\forall X3.(m1_genealg1 X3 X2) \Rightarrow (\forall X4.(m1_genealg1 X4 X2) \Rightarrow \\
 & \quad ((r1_xxreal_0 (k3_finseq_1 X3) X0) \Rightarrow (k8_genealg1 X2 X3 X4 X1 X0 = \\
 & \quad \quad k7_genealg1 X2 X3 X4 X1))))))
 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & \quad X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \\
 & \quad ((\neg v1_xboole_0 X3) \wedge ((v1_relat_1 X3) \wedge ((v2_relat_1 X3) \wedge ((v1_funct_1 \\
 & \quad \quad X3) \wedge (v1_finseq_1 X3)))))) \Rightarrow (\forall X4.(m1_genealg1 X4 X3) \Rightarrow (\forall X5. \\
 & \quad (m1_genealg1 X5 X3) \Rightarrow (((r1_xxreal_0 (k3_finseq_1 X4) X0) \wedge (r1_xxreal_0 \\
 & \quad \quad (k3_finseq_1 X4) X1)) \Rightarrow (k9_genealg1 X3 X4 X5 X0 X2 X1 = k7_genealg1 \\
 & \quad \quad \quad X3 X4 X5 X2))))))
 \end{aligned}$$