

# t39\_genealg1 (TMbiPmcP- nYY61g6zUrW4AK3z4MACercvv27)

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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  $k8\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3. \\
& (m1\_subset\_1 X3 k5\_numbers) \Rightarrow (\forall X4.((\neg v1\_xboole\_0 X4) \wedge \\
& ((v1\_relat\_1 X4) \wedge ((v2\_relat\_1 X4) \wedge ((v1\_funct\_1 X4) \wedge (v1\_finseq\_1 \\
& X4)))))) \Rightarrow (\forall X5.(m1\_genealg1 X5 X4) \Rightarrow (\forall X6.(m1\_genealg1 \\
& X6 X4) \Rightarrow ((k10\_genealg1 X4 X5 X6 X0 X0 X1 X2 = k8\_genealg1 X4 X5 X6 X1 X2) \wedge \\
& ((k10\_genealg1 X4 X5 X6 X0 X3 X0 X2 = k8\_genealg1 X4 X5 X6 X3 X2) \wedge ((k10\_genealg1 \\
& X4 X5 X6 X0 X3 X1 X0 = k8\_genealg1 X4 X5 X6 X3 X1) \wedge ((k10\_genealg1 X4 X5 \\
& X6 X0 X3 X3 X2 = k8\_genealg1 X4 X5 X6 X0 X2) \wedge ((k10\_genealg1 X4 X5 X6 X0 \\
& X3 X1 X3 = k8\_genealg1 X4 X5 X6 X0 X1) \wedge (k10\_genealg1 X4 X5 X6 X0 X3 X1 \\
& X1 = k8\_genealg1 X4 X5 X6 X0 X3)))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v1\_xboole\_0 \\
& X1) \wedge ((v1\_relat\_1 X1) \wedge ((v2\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 \\
& X1)))))) \Rightarrow (\forall X2.(m1\_genealg1 X2 X1) \Rightarrow (\forall X3.(m1\_genealg1 \\
& X3 X1) \Rightarrow (k8\_genealg1 X1 X2 X3 X0 X0 = X2)))
\end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\forall X3. \\
& ((\neg v1\_xboole\_0 X3) \wedge ((v1\_relat\_1 X3) \wedge ((v2\_relat\_1 X3) \wedge ((v1\_funct\_1 \\
& X3) \wedge (v1\_finseq\_1 X3)))))) \Rightarrow (\forall X4.(m1\_genealg1 X4 X3) \Rightarrow (\forall X5. \\
& (m1\_genealg1 X5 X3) \Rightarrow ((k10\_genealg1 X3 X4 X5 X0 X0 X1 X1 = X4) \wedge ((k10\_genealg1 \\
& X3 X4 X5 X0 X2 X0 X2 = X4) \wedge (k10\_genealg1 X3 X4 X5 X0 X2 X2 X0 = X4)))))))))
\end{aligned}$$