t53_genealg1 (TMWfKd-FCAgFhoxJ1jwzCSnUw4ARNbGaSRGK)

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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 $k6\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k5\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ k5\_numbers) \Rightarrow (\forall X5.((\neg v1\_xboole\_0\ X5) \wedge ((v1\_relat\_1\ X5) \wedge ((v2\_relat\_1\ X5) \wedge ((v1\_funct\_1\ X5) \wedge (v1\_finseq\_1\ X5))))) \Rightarrow (\forall X6.(m1\_genealg1\ X6\ X5) \Rightarrow (\forall X7.(m1\_genealg1\ X7\ X5) \Rightarrow (m1\_genealg1\ (k5\_genealg1\ X5\ X6\ X7\ X0\ X1\ X2\ X3\ X4)\ X5)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_relat\_1\ X1) \wedge ((v2\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))))) \Rightarrow (\forall X2.(m1\_genealg1\ X2\ X1) \Rightarrow (\forall X3.(m1\_genealg1\ X3\ X1) \Rightarrow (m1\_genealg1\ (k1\_genealg1\ X1\ X2\ X3\ X0)\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v1\_relat\_1\ X0) \wedge ((v2\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))))) \Rightarrow (\forall X1.(m1\_genealg1\ X1\ X0) \Rightarrow (m2\_finseq\_1\ X1\ (k3\_card\_3\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (k3\_card\_3\ X0))\Rightarrow(\forall X2.(m2\_finseq\_1\ X2\ (k3\_card\_3\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ k5\_numbers)\Rightarrow(\forall X6.(m1\_subset\_1\ X6\ k5\_numbers)\Rightarrow(\forall X7.(m1\_subset\_1\ X7\ k5\_numbers)\Rightarrow(\forall X8.(m1\_subset\_1\ X8\ k5\_numbers)\Rightarrow(k6\_genealg1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7\ X8 = k1\_genealg1\ X0\ (k5\_genealg1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7)\ (k5\_genealg1\ X0\ X2\ X1\ X3\ X4\ X5\ X6\ X7)\ X8)))))))))) \tag{4}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k5\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ k5\_numbers)\Rightarrow(\forall X6.((\neg v1\_xboole\_0\ X6)\wedge((v1\_relat\_1\ X6)\wedge((v2\_relat\_1\ X6)\wedge((v1\_funct\_1\ X6)\wedge(v1\_finseq\_1\ X6)))))\Rightarrow(\forall X7.(m1\_genealg1\ X7\ X6)\Rightarrow(\forall X8.(m1\_genealg1\ X8\ X6)\Rightarrow(m1\_genealg1\ (k6\_genealg1\ X6\ X7\ X8\ X0\ X1\ X2\ X3\ X4\ X5)\ X6)))))))))$$