t36_genealg1 (TMRqaEBgCJxhF5DJfGDrCewmoUcaGf8fiWr)

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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 $k10\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k5\_numbers) \Rightarrow (\forall X4.((\neg v1\_xboole\_0\ X4) \wedge ((v1\_relat\_1\ X4) \wedge ((v2\_relat\_1\ X4) \wedge ((v1\_funct\_1\ X4) \wedge (v1\_finseq\_1\ X4))))) \Rightarrow (\forall X5.(m1\_genealg1\ X5\ X4) \Rightarrow (\forall X6.(m1\_genealg1\ X6\ X4) \Rightarrow ((((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X0) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X1)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X2\ X3)) \wedge ((((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X0) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X2)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X1\ X3)) \wedge ((((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X0) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X3)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X1\ X2)) \wedge ((((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X1) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X2)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X0\ X3)) \wedge ((((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X1) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X3)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X0\ X2)) \wedge (((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X2) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X3)) \Rightarrow (k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = k8\_genealg1\ X4\ X5\ X6\ X0\ X1))))))))))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v1\_relat\_1\ X2) \wedge ((v2\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finseq\_1\ X2))))) \Rightarrow (\forall X3.(m1\_genealg1\ X3\ X2) \Rightarrow (\forall X4.(m1\_genealg1\ X4\ X2) \Rightarrow (((r1\_xxreal\_0\ (k3\_finseq\_1\ X3)\ X0) \wedge (r1\_xxreal\_0\ (k3\_finseq\_1\ X3)\ X1)) \Rightarrow (k8\_genealg1\ X2\ X3\ X4\ X0\ X1 = X3)))))) \tag{2}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k5\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(\forall X4.((\neg v1\_xboole\_0\ X4)\wedge((v1\_relat\_1\ X4)\wedge((v2\_relat\_1\ X4)\wedge((v1\_funct\_1\ X4)\wedge(v1\_finseq\_1\ X4)))))\Rightarrow(\forall X5.(m1\_genealg1\ X5\ X4)\Rightarrow(\forall X6.(m1\_genealg1\ X6\ X4)\Rightarrow(((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X0)\wedge((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X1)\wedge((r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X2)\wedge(r1\_xxreal\_0\ (k3\_finseq\_1\ X5)\ X3))))\Rightarrow(k10\_genealg1\ X4\ X5\ X6\ X0\ X1\ X2\ X3 = X5))))))))$$