t15_genealg1 (TMJb-Dkg4QoANm2KfPAhqfDamXT1uxb1Lcuj)

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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 $k9\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k8\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k3\_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_relat\_1\ X1) \wedge ((v2\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))))) \Rightarrow (\forall X2.(m1\_genealg1\ X2\ X1) \Rightarrow (\forall X3.(m1\_genealg1\ X3\ X1) \Rightarrow (k8\_genealg1\ X1\ X2\ X3\ k6\_numbers\ X0 = k7\_genealg1\ X1\ X3\ X2\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v1\_relat\_1\ X2) \wedge ((v2\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finseq\_1\ X2))))) \Rightarrow (\forall X3.(m1\_genealg1\ X3\ X2) \Rightarrow (\forall X4.(m1\_genealg1\ X4\ X2) \Rightarrow (m1\_genealg1\ (k2\_genealg1\ X2\ X3\ X4\ X0\ X1)\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v1\_relat\_1\ X0) \wedge ((v2\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))))) \Rightarrow (\forall X1.(m1\_genealg1\ X1\ X0) \Rightarrow (\forall X2.(m1\_genealg1\ X2\ X0) \Rightarrow (k7\_genealg1\ X0\ X1\ X2\ k6\_numbers = X2))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge((v2\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1)))))\Rightarrow(\forall X2.(m1\_genealg1\ X2\ X1)\Rightarrow(\forall X3.(m1\_genealg1\ X3\ X1)\Rightarrow(m1\_genealg1\ (k1\_genealg1\ X1\ X2\ X3\ X0)\ X1)))) \tag{4}$$

Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ (((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\wedge((m1\_genealg1\ X1\ X0)\wedge((m1\_genealg1\ X2\ X0)\wedge((m1\_subset\_1\ X3\ k5\_numbers)\wedge((m1\_subset\_1\ X4\ k5\_numbers)\wedge(m1\_subset\_1\ X5\ k5\_numbers))))))\Rightarrow(k9\_genealg1\ X0\ X1\ X2\ X3\ X4\ X5 = k3\_genealg1\ X0\ X1\ X2\ X3\ X4\ X5) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\wedge((m1\_genealg1\ X1\ X0)\wedge((m1\_genealg1\ X2\ X0)\wedge((m1\_subset\_1\ X3\ k5\_numbers)\wedge(m1\_subset\_1\ X4\ k5\_numbers)))))\Rightarrow(k8\_genealg1\ X0\ X1\ X2\ X3\ X4 = k2\_genealg1\ X0\ X1\ X2\ X3\ X4) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\wedge((m1\_genealg1\ X1\ X0)\wedge((m1\_genealg1\ X2\ X0)\wedge(m1\_subset\_1\ X3\ k5\_numbers))))\Rightarrow(k7\_genealg1\ X0\ X1\ X2\ X3 = k1\_genealg1\ X0\ X1\ X2\ X3) \tag{8}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{9}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{10}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\Rightarrow(\forall X1.(m1\_genealg1\ X1\ X0)\Rightarrow(m2\_finseq\_1\ X1\ (k3\_card\_3\ X0))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\wedge((m1\_genealg1\ X1\ X0)\wedge((m1\_genealg1\ X2\ X0)\wedge((m1\_subset\_1\ X3\ k5\_numbers)\wedge(m1\_subset\_1\ X4\ k5\_numbers)))))\Rightarrow(m1\_genealg1\ (k8\_genealg1\ X0\ X1\ X2\ X3\ X4)\ X0) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (k3\_card\_3\ X0))\Rightarrow(\forall X2.(m2\_finseq\_1\ X2\ (k3\_card\_3\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(\forall X5.(m1\_subset\_1\ X5\ k5\_numbers)\Rightarrow(k3\_genealg1\ X0\ X1\ X2\ X3\ X4\ X5 = k1\_genealg1\ X0\ (k2\_genealg1\ X0\ X1\ X2\ X3\ X4)\ (k2\_genealg1\ X0\ X2\ X1\ X3\ X4)\ X5))))))) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X0)\wedge((v2\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))))\Rightarrow(\forall X1.(m2\_finseq\_1\ X1\ (k3\_card\_3\ X0))\Rightarrow(\forall X2.(m2\_finseq\_1\ X2\ (k3\_card\_3\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ k5\_numbers)\Rightarrow(k2\_genealg1\ X0\ X1\ X2\ X3\ X4 = k1\_genealg1\ X0\ (k1\_genealg1\ X0\ X1\ X2\ X3)\ (k1\_genealg1\ X0\ X2\ X1\ X3)\ X4))))) \tag{14}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k5\_numbers)\Rightarrow(\forall X3.((\neg v1\_xboole\_0\ X3)\wedge((v1\_relat\_1\ X3)\wedge((v2\_relat\_1\ X3)\wedge((v1\_funct\_1\ X3)\wedge(v1\_finseq\_1\ X3)))))\Rightarrow(\forall X4.(m1\_genealg1\ X4\ X3)\Rightarrow(\forall X5.(m1\_genealg1\ X5\ X3)\Rightarrow((k9\_genealg1\ X3\ X4\ X5\ k6\_numbers\ X0\ X1 = k8\_genealg1\ X3\ X5\ X4\ X0\ X1)\wedge((k9\_genealg1\ X3\ X4\ X5\ X2\ k6\_numbers\ X1 = k8\_genealg1\ X3\ X5\ X4\ X2\ X1)\wedge(k9\_genealg1\ X3\ X4\ X5\ X2\ X0\ k6\_numbers = k8\_genealg1\ X3\ X5\ X4\ X2\ X0)))))))))$$