t38_trees_9 (TMXr2zsbnaPCQFxg26MvpP3AE3kyZYTDY2P)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_trees\_2 : \iota \Rightarrow o$ be given. Let $v3\_trees\_9 : \iota \Rightarrow o$ be given. Let $m1\_trees\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_trees\_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_trees\_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_trees\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge ((v3\_trees\_2\ X0) \wedge (v3\_trees\_9\ X0)))) \Rightarrow (\forall X1.(m1\_trees\_1\ X1\ (k9\_xtuple\_0\ X0)) \Rightarrow (k1\_relset\_1\ k5\_numbers\ (k3\_relat\_1\ (k1\_trees\_9\ (k9\_xtuple\_0\ X0)\ X1)\ X0) = k4\_finseq\_1\ (k1\_trees\_9\ (k9\_xtuple\_0\ X0)\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge ((v3\_trees\_2\ X0) \wedge (v3\_trees\_9\ X0)))) \Rightarrow (\forall X1.(m1\_trees\_1\ X1\ (k9\_xtuple\_0\ X0)) \Rightarrow (k2\_trees\_9\ X0\ X1 = k3\_relat\_1\ (k1\_trees\_9\ (k9\_xtuple\_0\ X0)\ X1)\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (k4\_finseq\_1\ X0 = k9\_xtuple\_0\ X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v4\_relat\_1\ X1\ X0)) \Rightarrow (k1\_relset\_1\ X0\ X1 = k9\_xtuple\_0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v3\_trees\_2\ X0)))\Rightarrow ((\neg v1\_xboole\_0\ (k9\_xtuple\_0\ X0))\wedge(v1\_trees\_1\ (k9\_xtuple\_0\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_trees\_1\ X0))\Rightarrow(\forall X1.\ (m1\_trees\_1\ X1\ X0)\Rightarrow(m2\_finseq\_1\ X1\ k5\_numbers)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k3\_relat\_1\ X0\ X1) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_trees\_2\ X0)\wedge(v3\_trees\_9\ X0))))\wedge((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))))\Rightarrow((v1\_relat\_1\ (k2\_trees\_9\ X0\ X1))\wedge((v1\_funct\_1\ (k2\_trees\_9\ X0\ X1))\wedge(v1\_finseq\_1\ (k2\_trees\_9\ X0\ X1)))) \tag{10}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finseq\_1\ X0)))\Rightarrow ((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge (v1\_finseq\_1\ X0)))) \tag{11}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_trees\_2\ X0)\wedge (v3\_trees\_9\ X0))))\Rightarrow(\forall X1.(m1\_trees\_1\ X1\ (k9\_xtuple\_0\ X0))\Rightarrow (k4\_finseq\_1\ (k2\_trees\_9\ X0\ X1) = k4\_finseq\_1\ (k1\_trees\_9\ (k9\_xtuple\_0\ X0)\ X1)))$$