t20_trees_1 (TMGGp6Ny4GQnM1xB137u7GGUNYVWfmFQd5u)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_trees\_1 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k1\_trees\_1 : \iota \Rightarrow \iota$ be given. Let $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X1) \wedge (v1\_trees\_1\ X1)) \Rightarrow (X0 \in X1) \Rightarrow (m2\_finseq\_1\ X0\ k5\_numbers)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow ((X0 \in k1\_trees\_1\ X1) \Leftrightarrow (r2\_xboole\_0\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0\ X0\ X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (X0 \neq X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_trees\_1\ X0) \Leftrightarrow ((r1\_tarski\ X0\ (k3\_finseq\_2\ k5\_numbers)) \wedge ((\forall X1.(m2\_finseq\_1\ X1\ k5\_numbers) \Rightarrow ((X1 \in X0) \Rightarrow (r1\_tarski\ (k1\_trees\_1\ X1)\ X0))) \wedge (\forall X1.(m2\_finseq\_1\ X1\ k5\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k5\_numbers) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k5\_numbers) \Rightarrow (((k8\_finseq\_1\ k5\_numbers\ X1\ (k12\_finseq\_1\ k5\_numbers\ X2) \in X0) \wedge (r1\_xxreal\_0\ X3\ X2)) \Rightarrow (k8\_finseq\_1\ k5\_numbers\ X1\ (k12\_finseq\_1\ k5\_numbers\ X3) \in X0))))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \tag{6}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_trees\_1\ X0)) \Rightarrow (\forall X1.\ ((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (\forall X2.\ ((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finseq\_1\ X2))) \Rightarrow (((X1 \in X0) \wedge (r1\_tarski\ X2\ X1)) \Rightarrow (X2 \in X0))))$$