t6_trees_3 (TMNxnoxBPn1E9se7JcMQeBrgsfZdk4WDZUn)

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Let $v2\_trees\_3 : \iota \Rightarrow o$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_trees\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v2\_trees\_3\ X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow ((\neg v1\_xboole\_0\ X1) \wedge ((v1\_finset\_1\ X1) \wedge (v1\_trees\_1\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \tag{2}$$

Theorem 1

$$\forall X0.\forall X1.((v2\_trees\_3\ X0) \wedge (v2\_trees\_3\ X1)) \Leftrightarrow (v2\_trees\_3\ (k2\_xboole\_0\ X0\ X1))$$