

## t12\_trees\_1

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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  $k1\_trees\_1 : \iota \Rightarrow \iota$  be given. Let  $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow \\ (\forall X1.(X1 = k1\_trees\_1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3. \\ ((v1\_relat\_1 X3) \wedge ((v1\_funct\_1 X3) \wedge (v1\_finseq\_1 X3))) \wedge ((X2 = \\ X3) \wedge (r2\_xboole\_0 X3 X0)))))) \end{aligned} \quad (1)$$

### Theorem 1

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