

# t30\_trees\_1 (TMQzCjTkBNKeCN- vmaz3bgc7ButVpRLgc6Qm)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_trees\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow & (k2\_trees\_1 X0 = k2\_xboole\_0 \\ & (ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 k5\_numbers)) (\lambda X1 : \\ & \iota.\neg r1\_xreal\_0 X0 X1) (\lambda X1 : \iota.k12\_finseq\_1 k5\_numbers \\ & X1)) (k1\_tarski k1\_xboole\_0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0 X0 X1) \Leftrightarrow & (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(X1 = k1\_tarski X0) \Leftrightarrow & (\forall X2.(X2 \in X1) \Leftrightarrow \\ & (X2 = X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (4)$$

## Theorem 1

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow & (\forall X1.(m2\_finseq\_1 \\ & X1 k5\_numbers) \Rightarrow (\neg(X1 \in k2\_trees\_1 X0) \wedge ((X1 \neq k1\_xboole\_0) \wedge (\forall X2. \\ & (m1\_subset\_1 X2 k5\_numbers) \Rightarrow (\neg(\neg r1\_xreal\_0 X0 X2) \wedge (X1 = k12\_finseq\_1 \\ & k5\_numbers X2)))))) \end{aligned}$$