

t10\_trees\_3  
(TMcr4VAbTmjjsNnfmu61tYpqZwgkb1JbqKv)

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Let  $v3\_trees\_3 : \iota \Rightarrow o$  be given. Let  $k5\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. 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. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in k5\_xboole\_0 X1 X2) \Leftrightarrow (\neg (X0 \in X1) \Leftrightarrow (X0 \in X2)) \quad (1)$$

Assume the following.

$$\forall X0. (v3\_trees\_3 X0) \Leftrightarrow (\forall X1. (X1 \in X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v3\_trees\_2 X1)))) \quad (2)$$

**Theorem 1**

$$\forall X0. \forall X1. ((v3\_trees\_3 X0) \wedge (v3\_trees\_3 X1)) \Rightarrow (v3\_trees\_3 (k5\_xboole\_0 X0 X1))$$