

t27\_trees\_1 (TMTf-  
mAYTNy69k9hFdeoMWi8WC5EMeDDsiAM)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_trees\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1\_xboole\_0 X0) \wedge (v1\_trees\_1 X0)) \wedge \\ & ((\neg v1\_xboole\_0 X1) \wedge (v1\_trees\_1 X1))) \Rightarrow ((\neg v1\_xboole\_0 (k3\_xboole\_0 \\ & X0 X1)) \wedge (v1\_trees\_1 (k3\_xboole\_0 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1\_finset\_1 X0) \Rightarrow (v1\_finset\_1 (k3\_xboole\_0 X0 X1)) \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v1\_xboole\_0 X0) \wedge (v1\_trees\_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v1\_xboole\_0 X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_trees\_1 X1))) \Rightarrow ((\neg \\ & v1\_xboole\_0 (k3\_xboole\_0 X1 X0)) \wedge ((v1\_finset\_1 (k3\_xboole\_0 \\ & X1 X0)) \wedge (v1\_trees\_1 (k3\_xboole\_0 X1 X0)))) \end{aligned}$$