

t76\_xboole\_1

(TMX2uXCKvBNz9r2c67MJNFZFX9d9Q4MPC5Q)

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Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(\neg(r1\_xboole\_0 X0 (k3\_xboole\_0 X1 X2)) \wedge (r1\_xboole\_0 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_xboole\_0 X0 X1) \Rightarrow (r1\_xboole\_0 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (3)$$

**Theorem 1**

$$\forall X0. \forall X1. \forall X2. (r1\_xboole\_0 X0 X1) \Rightarrow (r1\_xboole\_0 (k3\_xboole\_0 X2 X0) (k3\_xboole\_0 X2 X1))$$