

t83\_xboole\_1

(TMKrYA8FLozECjBTWE6My7cRxmvoAaFNodK)

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Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_xboole\_0 (k4\_xboole\_0 X0 X1) X1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k4\_xboole\_0 X0 (k4\_xboole\_0 X0 X1) = k3\_xboole\_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k4\_xboole\_0 X0 (k3\_xboole\_0 X0 X1) = k4\_xboole\_0 X0 X1 \quad (3)$$

Assume the following.

$$\forall X0. k4\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_xboole\_0 X0 X1) \Leftrightarrow (k3\_xboole\_0 X0 X1 = k1\_xboole\_0) \quad (5)$$

**Theorem 1**  $\forall X0. \forall X1. (r1\_xboole\_0 X0 X1) \Leftrightarrow (k4\_xboole\_0 X0 X1 = X0)$ .