

t40\_relat\_1  
(TMaZjbUCMbqXhTFEgacBLSiA5sN1xJqoZp8)

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Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$(k9\_xtuple\_0 \ k1\_xboole\_0 = k1\_xboole\_0) \wedge (k10\_xtuple\_0 \ k1\_xboole\_0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\forall X0. k2\_xboole\_0 \ X0 \ k1\_xboole\_0 = X0 \quad (2)$$

Assume the following.

$$v1\_xboole\_0 \ k1\_xboole\_0 \quad (3)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 \ X0) \Rightarrow (k1\_relat\_1 \ X0 = k2\_xboole\_0 \ (k9\_xtuple\_0 \ X0) \ (k10\_xtuple\_0 \ X0)) \quad (4)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 \ X0) \Rightarrow (v1\_relat\_1 \ X0) \quad (5)$$

**Theorem 1**  $k1\_relat\_1 \ k1\_xboole\_0 = k1\_xboole\_0$ .