

## t80\_relat\_1

(TMHz9j8S743P7WhayNNrcU6NxxzgzzxRbVmg)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (v1\_relat\_1 X1) \Rightarrow (k5\_relat\_1 X1 X0 = k3\_xboole\_0 X1 (k2\_zfmisc\_1 X0 (k10\_xtuple\_0 X1))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3\_xboole\_0 X0 (k4\_xboole\_0 X1 X2) = k4\_xboole\_0 (k3\_xboole\_0 X0 X1) (k3\_xboole\_0 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3\_xboole\_0 X0 (k4\_xboole\_0 X1 X2) = k4\_xboole\_0 (k3\_xboole\_0 X0 X1) X2 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (k2\_zfmisc\_1 (k4\_xboole\_0 X0 X1) X2 = k4\_xboole\_0 (k2\_zfmisc\_1 X0 X2) (k2\_zfmisc\_1 X1 X2)) \wedge (k2\_zfmisc\_1 X2 (k4\_xboole\_0 X0 X1) = k4\_xboole\_0 (k2\_zfmisc\_1 X2 X0) (k2\_zfmisc\_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (5)$$

### Theorem 1

$$\forall X0. \forall X1. \forall X2. (v1\_relat\_1 X2) \Rightarrow (k5\_relat\_1 X2 (k6\_subset\_1 X0 X1) = k6\_subset\_1 (k5\_relat\_1 X2 X0) (k5\_relat\_1 X2 X1))$$