

t104_relat_1 (TMUTL-
cGrS28w4kMBH19CC5s4QrLkvyuBWDn)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k6_relat_1 X0 X1 = k3_xboole_0 X1 (k2_zfmisc_1 (k9_xtuple_0 X1) X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xboole_0 (k3_xboole_0 X0 X1) X2 = k3_xboole_0 X0 (k3_xboole_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xboole_0 X0 (k3_xboole_0 X1 X2) = k3_xboole_0 (k3_xboole_0 X0 X1) (k3_xboole_0 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. k2_zfmisc_1 (k3_xboole_0 X0 X1) (k3_xboole_0 X2 X3) = k3_xboole_0 (k2_zfmisc_1 X0 X2) (k2_zfmisc_1 X1 X3) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k3_xboole_0 X0 X0 = X0 \quad (5)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (k6_relat_1 (k3_xboole_0 X0 X1) X2 = k3_xboole_0 (k6_relat_1 X0 X2) (k6_relat_1 X1 X2))$$