

t78_relat_1

(TMVtxi9fnM1VJEXbVgzUvnEXo283ZkWJmKk)

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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 $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (k2_zfmisc_1 (k2_xboole_0 X0 \\ & X1) X2 = k2_xboole_0 (k2_zfmisc_1 X0 X2) (k2_zfmisc_1 X1 X2)) \wedge (k2_zfmisc_1 \\ & X2 (k2_xboole_0 X0 X1) = k2_xboole_0 (k2_zfmisc_1 X2 X0) (k2_zfmisc_1 \\ & X2 X1)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k5_relat_1 X1 X0 = k3_xboole_0 \\ & X1 (k2_zfmisc_1 X0 (k10_xtuple_0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. k3_xboole_0 X0 (k2_xboole_0 \\ & X1 X2) = k2_xboole_0 (k3_xboole_0 X0 X1) (k3_xboole_0 X0 X2) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (k5_relat_1 \\ & X2 (k2_xboole_0 X0 X1) = k2_xboole_0 (k5_relat_1 X2 X0) (k5_relat_1 \\ & X2 X1)) \end{aligned}$$