

t12_funcop_1 (TM- FRp1DzHtCM1uHYWpF8Z8RUL3sWKZYp4Sy)

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Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k1_xboole_0 : \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (k2_zfmisc_1 (k3_xboole_0 X0 \\ X1) X2 = k3_xboole_0 (k2_zfmisc_1 X0 X2) (k2_zfmisc_1 X1 X2)) \wedge (k2_zfmisc_1 \\ X2 (k3_xboole_0 X0 X1) = k3_xboole_0 (k2_zfmisc_1 X2 X0) (k2_zfmisc_1 \\ X2 X1)) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \neq k1_xboole_0) \Rightarrow (k10_xtuple_0 (k2_funcop_1 \\ X0 X1) = k1_tarski X1) \tag{2}$$

Assume the following.

$$\forall X0. k5_relat_1 k1_xboole_0 X0 = k1_xboole_0 \tag{3}$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (k5_relat_1 X1 X0 = k3_xboole_0 \\ X1 (k2_zfmisc_1 X0 (k10_xtuple_0 X1))) \tag{5}$$

Assume the following.

$$\forall X0. k3_xboole_0 X0 k1_xboole_0 = k1_xboole_0 \tag{6}$$

Assume the following.

$$\forall X0. v1_xboole_0 (k2_funcop_1 k1_xboole_0 X0) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 (k2_funcop_1 X0 X1))\wedge(v1_funct_1 (k2_funcop_1 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarski X1) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (10)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.k5_relat_1 (k2_funcop_1 X0 X1) X2 = k2_funcop_1 (k3_xboole_0 X0 X2) X1$$