

t2_finseqop
(TMaKebqBQ7GXiS8qryhiLUn6L9Qpro7PRWd)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k15_funct_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (k2_zfmisc_1 X0 X1 = k1_xboole_0) \Leftrightarrow ((X0 = k1_xboole_0) \vee (X1 = k1_xboole_0)) \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (k10_xtuple_0 (k15_funct_3 X0 X1) = k2_zfmisc_1 (k10_xtuple_0 X0) (k10_xtuple_0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (((k9_xtuple_0 X0 = k1_xboole_0) \vee (k10_xtuple_0 X0 = k1_xboole_0)) \Rightarrow (X0 = k1_xboole_0)) \quad (3)$$

Assume the following.

$$(k9_xtuple_0 k1_xboole_0 = k1_xboole_0) \wedge (k10_xtuple_0 k1_xboole_0 = k1_xboole_0) \quad (4)$$

Assume the following.

$$\forall X0 : \iota \Rightarrow \iota. \forall X1. \exists X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2) \wedge (v5_ordinal1 X2)) \wedge ((k9_xtuple_0 X2 = X1) \wedge (\forall X3. (v3_ordinal1 X3) \Rightarrow (\forall X4. ((v1_relat_1 X4) \wedge (v1_funct_1 X4) \wedge (v5_ordinal1 X4)) \Rightarrow (((X3 \in X1) \wedge (X4 = k5_relat_1 X2 X3)) \Rightarrow (k1_funct_1 X2 X3 = X0 X4)))))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k15_funct_3 X0 X1)) \wedge (v1_funct_1 (k15_funct_3 X0 X1))) \quad (6)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((k15_funct_3 k1_xboole_0 X0 = k1_xboole_0) \wedge (k15_funct_3 X0 k1_xboole_0 = k1_xboole_0))$$