

t33_partit1

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_partit1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_partit1 : \iota \Rightarrow \iota$ be given. Let $k1_eqrel_1 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v3_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4_tarski X0 X1 \in k2_zfmisc_1 X2 X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.(v3_relat_2 (k1_eqrel_1 X0)) \wedge ((v8_relat_2 (k1_eqrel_1 X0)) \wedge (v1_partfun1 (k1_eqrel_1 X0) X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_eqrel_1 X1 X0) \Rightarrow (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (m1_eqrel_1 (k6_partit1 X0) X0) \quad (5)$$

Assume the following.

$$\forall X0.m1_subset_1 (k1_eqrel_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (k6_partit1 X0 = k1_tarski X0) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_eqrel_1 X1 X0) \Rightarrow \\ (\forall X2.((v1_partfun1 X2 X0) \wedge ((v3_relat_2 X2) \wedge ((v8_relat_2 \\ X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \Rightarrow ((\\ X2 = k4_partit1 X0 X1) \Leftrightarrow (\forall X3.\forall X4.(k4_tarski X3 X4 \in \\ X2) \Leftrightarrow (\exists X5.(m1_subset_1 X5 (k1_zfmisc_1 X0)) \wedge ((X5 \in X1) \wedge \\ ((X3 \in X5) \wedge (X4 \in X5))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (10)$$

Assume the following.

$$\forall X0.k1_eqrel_1 X0 = k2_zfmisc_1 X0 X0 \quad (11)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (k4_partit1 X0 (k6_partit1 X0) = k1_eqrel_1 X0)$$