

t10_card_3

(TMSmesEwWiBcqicppiZcEsA2RzuCRQuYnzV)

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Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X0 \in k4_card_3 X1) \Leftrightarrow ((k9_xtuple_0 X0 = k9_xtuple_0 X1) \wedge (\forall X2.(X2 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 X0 X2 \in k1_funct_1 X1 X2)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (((k9_xtuple_0 X0 = k1_xboole_0) \vee (k10_xtuple_0 X0 = k1_xboole_0)) \Rightarrow (X0 = k1_xboole_0)) \quad (2)$$

Assume the following.

$$(k9_xtuple_0 k1_xboole_0 = k1_xboole_0) \wedge (k10_xtuple_0 k1_xboole_0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1.(r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (4)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v3_relat_1 X0) \wedge (v1_funct_1 X0))) \Rightarrow (v1_xboole_0 (k1_funct_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v3_relat_1 X0) \Leftrightarrow (\forall X1.(X1 \in k9_xtuple_0 X0) \Rightarrow (v1_xboole_0 (k1_funct_1 X0 X1)))) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k4_card_3 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \wedge ((X2 = X3) \wedge ((k9_xtuple_0 X3 = k9_xtuple_0 X0) \wedge (\forall X4.(X4 \in k9_xtuple_0 X0) \Rightarrow (k1_funct_1 X3 X4 \in k1_funct_1 X0 X4)))))))) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1.(X1 = k1_zfmisc_1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (r1_tarski X2 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (12)$$

Assume the following.

$$\forall X0. \forall X1.(X1 = k1_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (13)$$

Theorem 1 $k4_card_3 k1_xboole_0 = k1_tarski k1_xboole_0$.