

t26_card_fin

(TMU8b6JjBmNqjMJY52usWEcNWsuKnvk97tY)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_card_fin : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \\ & ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((k5_relat_1 X1 (k8_relat_1 \\ & X2 (k1_tarski X0)) = k7_funcop_1 (k8_relat_1 X2 (k1_tarski X0)) \\ & (k3_tarski (k10_xtuple_0 X1))) \Rightarrow (k2_card_fin X1 X2 X0 = k3_tarski \\ & (k10_xtuple_0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (3)$$

Assume the following.

$$\begin{aligned} & \exists X0. (v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_xboole_0 X0) \wedge ((v5_ordinal1 X0) \wedge ((v4_valued_0 X0) \wedge \\ & ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. v1_xboole_0 (k2_funcop_1 k1_xboole_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xboole_0 X0)\wedge(v1_relat_1 X0))\Rightarrow(v1_xboole_0 (k8_relat_1 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge(v1_xboole_0 X1))\Rightarrow((v1_xboole_0 (k5_relat_1 X0 X1))\wedge(v1_relat_1 (k5_relat_1 X0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarski X1) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(v1_relat_1 X0) \quad (9)$$

Theorem 1

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge(v1_funct_1 X1))\Rightarrow(k2_card_fin X1 k1_xboole_0 X0 = k3_tarski (k10_xtuple_0 X1))$$