

t22_card_fin (TMKSNrxaCW- PybHL1Mon5yyJ5MC48QFkk5Fp)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_card_fin : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow (m1_subset_1 (k2_card_fin X0 X1 X2) (k1_zfmisc_1 (k3_tarski (k10_xtuple_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. (X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_tarski (k10_xtuple_0 X0)))) \Rightarrow ((X3 = k2_card_fin X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow ((X4 \in k3_tarski (k10_xtuple_0 X0)) \wedge (\forall X5. ((X5 \in k9_xtuple_0 X1) \wedge (k1_funct_1 X1 X5 = X2)) \Rightarrow (X4 \in k1_funct_1 X0 X5)))))))) \quad (3)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge (v1_funct_1 X3)) \Rightarrow (\neg (X0 \in k2_card_fin X2 X3 X1) \wedge ((X1 \in k10_xtuple_0 X3) \wedge (\forall X4. \neg (X4 \in k9_xtuple_0 X3) \wedge ((k1_funct_1 X3 X4 = X1) \wedge (X0 \in k1_funct_1 X2 X4))))))$$