

t47_card_2
(TMT9r6stXXoZX8ic58hzaUXxXeGGpLkf1wL)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (r1_ordinal1 X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(r1_ordinal1 (k1_card_1 X0) (k1_card_1 X1)) \Leftrightarrow (\exists X2.((v1_relat_1 X2) \wedge (v1_funct_1 X2) \wedge ((k9_xtuple_0 X2 = X1) \wedge (r1_tarski X0 (k10_xtuple_0 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (3)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (k5_card_1 X0 = k1_card_1 X0) \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_finset_1 X0)) \Rightarrow (v1_finset_1 (k10_xtuple_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_finset_1 X0)) \Rightarrow (v1_finset_1 (k9_xtuple_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (8)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0))) \Rightarrow \\ (r1_xxreal_0 (k5_card_1 (k10_xtuple_0 X0)) (k5_card_1 (k9_xtuple_0 \\ X0)))$$