

t3_card_2
(TMT6JCg1efntD5fzziMrsg1SBzVXh2QHz1d)

October 27, 2020

Let $k1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (k1_card_1 X0 = k1_card_1 (k9_xtuple_0 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r2_wellord2 X0 X1) \Leftrightarrow (k1_card_1 X0 = k1_card_1 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k1_funct_2 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow (\exists X4. ((v1_relat_1 X4) \wedge (v1_funct_1 X4)) \wedge ((X3 = X4) \wedge ((k9_xtuple_0 X4 = X0) \wedge (r1_tarski (k10_xtuple_0 X4) X1))))) \quad (3)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. (X0 \in k1_funct_2 X1 X2) \Rightarrow ((r2_wellord2 X0 X1) \wedge (k1_card_1 X0 = k1_card_1 X1))$$