

t14_card_2

(TMSH7gsHvhVaZpEJcDrMmpiEijwziqmj8cQ)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_card_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r2_wellord2 (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 \\ & (k1_card_1 X0) X1)) \wedge ((r2_wellord2 (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 \\ & X0 (k1_card_1 X1))) \wedge ((r2_wellord2 (k2_zfmisc_1 X0 X1) (k2_zfmisc_1 \\ & (k1_card_1 X0) (k1_card_1 X1))) \wedge ((k1_card_1 (k2_zfmisc_1 X0 X1) = \\ & k1_card_1 (k2_zfmisc_1 (k1_card_1 X0) X1)) \wedge (k1_card_1 (k2_zfmisc_1 \\ & X0 X1) = k1_card_1 (k2_zfmisc_1 X0 (k1_card_1 X1))) \wedge (k1_card_1 \\ & (k2_zfmisc_1 X0 X1) = k1_card_1 (k2_zfmisc_1 (k1_card_1 X0) (k1_card_1 \\ & X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((\\ & r2_wellord2 (k11_ordinal2 X0 X1) (k2_zfmisc_1 X0 X1)) \wedge (k1_card_1 \\ & (k11_ordinal2 X0 X1) = k1_card_1 (k2_zfmisc_1 X0 X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. v1_card_1 (k1_card_1 X0) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_card_1 X0) \Rightarrow (\forall X1. (v1_card_1 X1) \Rightarrow (k2_card_2 \\ & X0 X1 = k1_card_1 (k2_zfmisc_1 X0 X1))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (k1_card_1 \\ & (k11_ordinal2 X0 X1) = k2_card_2 (k1_card_1 X0) (k1_card_1 X1))) \end{aligned}$$