t88_card_2 (TMW68VEN6vrpJDyEKmKyygRCxDJwWAncGZF)

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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 $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow ((v1\_finset\_1\ (k9\_xtuple\_0\ X0)) \Rightarrow (v1\_finset\_1\ (k10\_xtuple\_0\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_finset\_1\ X0) \wedge (\forall X1.(X1 \in X0) \Rightarrow (v1\_finset\_1\ X1))) \Leftrightarrow (v1\_finset\_1\ (k3\_tarski\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (k3\_card\_3\ X0 = k3\_tarski\ (k10\_xtuple\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(X1 = k10\_xtuple\_0\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9\_xtuple\_0\ X0) \wedge (X2 = k1\_funct\_1\ X0\ X3)))) \tag{4}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (((v1\_finset\_1\ (k9\_xtuple\_0\ X0)) \wedge (\forall X1.(X1 \in k9\_xtuple\_0\ X0) \Rightarrow (v1\_finset\_1\ (k1\_funct\_1\ X0\ X1)))) \Rightarrow (v1\_finset\_1\ (k3\_card\_3\ X0)))$$