t85_card_2 (TMV4xi7gMLbTd5B1SrppQAjQ6avuWCCWt2a)

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Let $v4\_card\_3 : \iota \Rightarrow o$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow (\forall X2.(v1\_card\_1\ X2) \Rightarrow (\forall X3.(v1\_card\_1\ X3) \Rightarrow ((\neg(\neg(X0 \in X1) \wedge (X2 \in X3)) \wedge ((\neg(r1\_ordinal1\ X0\ X1) \wedge (X2 \in X3)) \wedge ((\neg(X0 \in X1) \wedge (r1\_ordinal1\ X2\ X3)) \wedge (\neg(r1\_ordinal1\ X0\ X1) \wedge (r1\_ordinal1\ X2\ X3))))) \Rightarrow ((r1\_ordinal1\ (k1\_card\_2\ X0\ X2)\ (k1\_card\_2\ X1\ X3)) \wedge (r1\_ordinal1\ (k1\_card\_2\ X2\ X0)\ (k1\_card\_2\ X1\ X3)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow ((\neg v1\_finset\_1\ X0) \Rightarrow (k1\_card\_2\ X0\ X0 = X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.r1\_ordinal1\ (k1\_card\_1\ (k2\_xboole\_0\ X0\ X1))\ (k1\_card\_2\ (k1\_card\_1\ X0)\ (k1\_card\_1\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (r1\_tarski\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.k1\_card\_1\ (k1\_card\_1\ X0) = k1\_card\_1\ X0 \tag{6}$$

Assume the following.

$$\neg v1\_finset\_1\ k4\_ordinal1 \tag{7}$$

Assume the following.

$$v1\_card\_1\ k4\_ordinal1 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_card\_1\ X0)\wedge(v1\_card\_1\ X1))\Rightarrow(v1\_card\_1\ (k1\_card\_2\ X0\ X1)) \tag{9}$$

Assume the following.

$$\forall X0.v1\_card\_1\ (k1\_card\_1\ X0) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0)\Rightarrow(\forall X1.(v1\_card\_1\ X1)\Rightarrow(k1\_card\_2\ X0\ X1 = k1\_card\_1\ (k10\_ordinal2\ X0\ X1))) \tag{11}$$

Assume the following.

$$\forall X0.(v4\_card\_3\ X0)\Leftrightarrow(r1\_ordinal1\ (k1\_card\_1\ X0)\ k4\_ordinal1) \tag{12}$$

Assume the following.

$$\forall X0.(v4\_card\_3\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v4\_card\_3\ X1)) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{14}$$

Theorem 1

$$\forall X0.\forall X1.((v4\_card\_3\ X0)\wedge(v4\_card\_3\ X1))\Rightarrow(v4\_card\_3\ (k2\_xboole\_0\ X0\ X1))$$