t46_card_1 (TMK4yytHqd4BmU5F1rvsCREkioFC1MqvcgC)

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Let $k3\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_ordinal1 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v4\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v5\_ordinal1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal2 : \iota \Rightarrow \iota$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ X0)\ X0) \tag{1}$$

Assume the following.

$$\forall X0.X0 \in k1\_ordinal1\ X0 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1) \Rightarrow (r1\_ordinal1\ (k1\_card\_1\ X0)\ (k1\_card\_1\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.r2\_wellord2\ X0\ X0 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow((r1\_ordinal1\ X0\ X1)\Leftrightarrow(r1\_tarski\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k4\_card\_1\ X0 = k1\_ordinal1\ X0) \tag{8}$$

Assume the following.

$$(k3\_card\_1\ k1\_xboole\_0 = k1\_card\_1\ k4\_ordinal1)\wedge((\forall X0.(v3\_ordinal1\ X0)\Rightarrow(k3\_card\_1\ (k1\_ordinal1\ X0) = k2\_card\_1\ (k3\_tarski\ (k1\_tarski\ (k3\_card\_1\ X0)))))\wedge(\forall X0.(v3\_ordinal1\ X0)\Rightarrow((v4\_ordinal1\ X0)\Rightarrow((X0 = k1\_xboole\_0)\vee(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v5\_ordinal1\ X1)))\Rightarrow(((k9\_xtuple\_0\ X1 = X0)\wedge(\forall X2.(v3\_ordinal1\ X2)\Rightarrow((X2 \in X0)\Rightarrow(k1\_funct\_1\ X1\ X2 = k3\_card\_1\ X2))))\Rightarrow(k3\_card\_1\ X0 = k1\_card\_1\ (k4\_ordinal2\ X1)))))))) \tag{9}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m1\_subset\_1\ (k4\_card\_1\ X0)\ k4\_ordinal1) \tag{11}$$

Assume the following.

$$\forall X0.v1\_card\_1\ (k1\_card\_1\ X0) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_card\_1\ X1)\Rightarrow((X1 = k1\_card\_1\ X0)\Leftrightarrow(r2\_wellord2\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.k1\_ordinal1\ X0 = k2\_xboole\_0\ X0\ (k1\_tarski\ X0) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(r1\_tarski\ X1\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow((r1\_ordinal1\ X0\ X1)\vee(r1\_ordinal1\ X1\ X0)) \tag{17}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_card\_1\ X0) \tag{19}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (v3\_ordinal1\ X0) \tag{20}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \tag{21}$$

Theorem 1 $k3\_card\_1\ k1\_xboole\_0 = k4\_ordinal1$.