t28_card_fil (TMZE7a7LmXLgC91Q8YtUdFE82bD6eb8BXGt)

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Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $r3\_card\_fil : o$ be given. Let $v2\_card\_1 : \iota \Rightarrow o$ be given. Let $v5\_card\_fil : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $np\_\_2 : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (r1\_ordinal1\ (k2\_card\_1\ X0)\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow ((v1\_finset\_1\ X0) \Rightarrow ((v1\_finset\_1\ X1) \vee ((X0 \in X1) \wedge (r1\_ordinal1\ X0\ X1))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_finset\_1\ X0) \wedge (v1\_finset\_1\ X1)) \Rightarrow (v1\_finset\_1\ (k1\_funct\_2\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1\_ordinal1\ X1\ X0))) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2) \wedge (m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_2\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (r1\_tarski\ X0\ X1)) \tag{6}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$\forall X0.(v1\_finset\_1\ X0) \Rightarrow ((v1\_finset\_1\ (k1\_card\_1\ X0)) \wedge (v1\_card\_1\ (k1\_card\_1\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.v1\_card\_1\ (k2\_card\_1\ X0) \tag{9}$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow ((v2\_card\_1\ X0) \Leftrightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow (X0 \neq k2\_card\_1\ X1))) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow (k3\_card\_2\ X0\ X1 = k1\_card\_1\ (k1\_funct\_2\ X1\ X0))) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v1\_finset\_1\ X0) \wedge (v1\_card\_1\ X0)) \Rightarrow ((v5\_card\_fil\ X0) \Leftrightarrow (\forall X1.(v1\_card\_1\ X1) \Rightarrow ((X1 \in X0) \Rightarrow (k3\_card\_2\ np\_\_2\ X1 \in X0)))) \tag{13}$$

Assume the following.

$$r3\_card\_fil \Leftrightarrow (\forall X0.((\neg v1\_finset\_1\ X0) \wedge (v1\_card\_1\ X0)) \Rightarrow (k2\_card\_1\ X0 = k3\_card\_2\ np\_\_2\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v1\_finset\_1\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (v1\_card\_1\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow (v3\_ordinal1\ X0) \tag{19}$$

Theorem 1

$$\forall X0.((\neg v1\_finset\_1\ X0) \wedge (v1\_card\_1\ X0)) \Rightarrow ((r3\_card\_fil \wedge (v2\_card\_1\ X0)) \Rightarrow (v5\_card\_fil\ X0))$$