

t27\_card\_fil  
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Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $v5\_card\_fil : \iota \Rightarrow o$  be given. Let  $v2\_card\_1 : \iota \Rightarrow o$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  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  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_card\_1 X0) \Rightarrow (\forall X1.(v1\_card\_1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1\_ordinal1 X1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_card\_1 X0) \Rightarrow (r1\_ordinal1 (k2\_card\_1 X0) (k3\_card\_2 np\_2 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (X0 \in k2\_card\_1 X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_card\_1 X0) \wedge (v1\_card\_1 X1)) \Rightarrow (v1\_card\_1 (k3\_card\_2 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_card\_1 X0) \Rightarrow ((v2\_card\_1 X0) \Leftrightarrow (\forall X1.(v1\_card\_1 X1) \Rightarrow (X0 \neq k2\_card\_1 X1))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v1\_finset\_1 X0) \wedge (v1\_card\_1 X0)) \Rightarrow ((v5\_card\_fil X0) \Leftrightarrow (\forall X1.(v1\_card\_1 X1) \Rightarrow ((X1 \in X0) \Rightarrow (k3\_card\_2 np\_2 X1 \in X0)))) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_card\_1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1\_card\_1 X0) \Rightarrow (v3\_ordinal1 X0) \quad (11)$$

**Theorem 1**

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