t17_card_4 (TMYm3WqxQrUTMXxBqkBGiXeacj961p8vSkJ)

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Let $v1\_card\_1 : \iota{\Rightarrow}o$ be given. Let $v1\_finset\_1 : \iota{\Rightarrow}o$ be given. Let $r1\_ordinal1 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k2\_card\_2 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ be given. Assume the following.

$$\forall X0.(v1\_card\_1\ X0){\Rightarrow}(\forall X1.(v1\_card\_1\ X1){\Rightarrow}(\forall X2.(v1\_card\_1\ X2){\Rightarrow}(((X0 \in X1){\vee}(r1\_ordinal1\ X0\ X1)){\Rightarrow}((r1\_ordinal1\ (k2\_card\_2\ X2\ X0)\ (k2\_card\_2\ X2\ X1)){\wedge}((r1\_ordinal1\ (k2\_card\_2\ X2\ X0)\ (k2\_card\_2\ X1\ X2)){\wedge}((r1\_ordinal1\ (k2\_card\_2\ X0\ X2)\ (k2\_card\_2\ X2\ X1)){\wedge}(r1\_ordinal1\ (k2\_card\_2\ X0\ X2)\ (k2\_card\_2\ X1\ X2)))))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0){\Rightarrow}((\neg v1\_finset\_1\ X0){\Rightarrow}(k2\_card\_2\ X0\ X0 = X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_card\_1\ X0){\wedge}(v1\_card\_1\ X1)){\Rightarrow}(k2\_card\_2\ X0\ X1 = k2\_card\_2\ X1\ X0) \tag{3}$$

Theorem 1

$$\forall X0.(v1\_card\_1\ X0){\Rightarrow}(\forall X1.(v1\_card\_1\ X1){\Rightarrow}(\neg(\neg v1\_finset\_1\ X0){\wedge}(((r1\_ordinal1\ X1\ X0){\vee}(X1 \in X0)){\wedge}(\neg(r1\_ordinal1\ (k2\_card\_2\ X0\ X1)\ X0){\wedge}(r1\_ordinal1\ (k2\_card\_2\ X1\ X0)\ X0)))))$$