t11_card_5 (TMLvgTqtfUkwnB2XidPxghTGTrAPHT4vYjw)

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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 $v1\_ordinal2 : \iota \Rightarrow o$ be given. Let $v2\_ordinal2 : \iota \Rightarrow o$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\neg (\neg X0 \in X1) \wedge ((X0 \neq X1) \wedge (\neg X1 \in X0)))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v5\_ordinal1\ X0))) \Rightarrow (v3\_ordinal1\ (k9\_xtuple\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow ((v2\_funct\_1\ X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in k9\_xtuple\_0\ X0) \wedge ((X2 \in k9\_xtuple\_0\ X0) \wedge (k1\_funct\_1\ X0\ X1 = k1\_funct\_1\ X0\ X2))) \Rightarrow (X1 = X2))) \tag{4}$$

Assume the following.

$$\forall X0.((v5\_ordinal1\ X0) \wedge ((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_ordinal2\ X0)))) \Rightarrow ((v2\_ordinal2\ X0) \Leftrightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.(v3\_ordinal1\ X2) \Rightarrow (((X1 \in X2) \wedge (X2 \in k9\_xtuple\_0\ X0)) \Rightarrow (k1\_funct\_1\ X0\ X1 \in k1\_funct\_1\ X0\ X2))))) \tag{5}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v3\_ordinal1\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \tag{7}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge(v1\_ordinal2\ X0))))\Rightarrow((v2\_ordinal2\ X0)\Rightarrow(v2\_funct\_1\ X0))$$