l3_topgen_4 (TMUMgvQx-ooK2ZDCmMnudbPK7a7ghtWrmAe1)

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Let $v4\_card\_3 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_numbers : \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_card\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$k1\_card\_1\ k3\_numbers = k4\_ordinal1 \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_ordinal1\ (k1\_card\_1\ X0)\ (k1\_card\_1\ X1)) \Leftrightarrow (\exists X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \wedge ((k9\_xtuple\_0\ X2 = X1) \wedge (r1\_tarski\ X0\ (k10\_xtuple\_0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v4\_card\_3\ X0) \Leftrightarrow (r1\_ordinal1\ (k1\_card\_1\ X0)\ k4\_ordinal1) \tag{3}$$

Theorem 1

$$\forall X0.(v4\_card\_3\ X0) \Leftrightarrow (\exists X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \wedge ((k9\_xtuple\_0\ X1 = k3\_numbers) \wedge (r1\_tarski\ X0\ (k10\_xtuple\_0\ X1))))$$