t8_rpr_1 (TMR-CbhZ42tXUJU5QKQyhNsJmDngA29332EH)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_zfmisc\_1 : \iota \Rightarrow o$ be given. Let $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_finseq\_1\ X0))) \Rightarrow (\forall X1.((v2\_funct\_1\ X0) \wedge (k10\_xtuple\_0\ X0 = k1\_tarski\ X1)) \Rightarrow (k3\_finseq\_1\ X0 = np\_\_1)) \tag{1}$$

Assume the following.

$$\forall X0.\neg(v1\_finset\_1\ X0) \wedge (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow (\neg(k10\_xtuple\_0\ X1 = X0) \wedge (v2\_funct\_1\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\neg(\neg v1\_xboole\_0\ X0) \wedge ((v1\_zfmisc\_1\ X0) \wedge (\forall X1.\ X0 \neq k1\_tarski\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0) \Leftrightarrow (m1\_finseq\_1\ X1\ X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finseq\_1\ X1))) \Rightarrow ((m1\_finseq\_1\ X1\ X0) \Leftrightarrow (r1\_tarski\ (k10\_xtuple\_0\ X1)\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(v3\_card\_1\ X0\ np\_\_1) \Rightarrow ((\neg v1\_xboole\_0\ X0) \wedge (v1\_zfmisc\_1\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \Rightarrow ((v3\_card\_1\ X1\ np\_\_1) \Rightarrow ((v1\_finset\_1\ X1) \wedge (v3\_card\_1\ X1\ np\_\_1)))) \quad (8)$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v3\_card\_1\ X1\ np\_\_1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))) \Rightarrow (\exists X2.((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finseq\_1\ X2))) \wedge ((m2\_finseq\_1\ X2\ X0) \wedge ((k10\_xtuple\_0\ X2 = X1) \wedge (k3\_finseq\_1\ X2 = np\_\_1)))))$$