t10_modal_1 (TMP-FAeFdYgZs6hJcM17G2gBVmQ1bFGXHSDs)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_trees\_2 : \iota \Rightarrow o$ be given. Let $k4\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_trees\_1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_trees\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v5\_relat\_1\ X1\ X0)) \Rightarrow (k2\_relset\_1\ X0\ X1 = k10\_xtuple\_0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v3\_trees\_2\ X0))) \Rightarrow ((\neg v1\_xboole\_0\ (k9\_xtuple\_0\ X0)) \wedge (v1\_trees\_1\ (k9\_xtuple\_0\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v5\_relat\_1\ X1\ X0)) \Rightarrow (m1\_subset\_1\ (k2\_relset\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_trees\_1\ X0)\Leftrightarrow((r1\_tarski\ X0\ (k3\_finseq\_2\ k5\_numbers))\wedge((\forall X1.(m2\_finseq\_1\ X1\ k5\_numbers)\Rightarrow((X1\in X0)\Rightarrow(r1\_tarski\ (k1\_trees\_1\ X1)\ X0)))\wedge(\forall X1.(m2\_finseq\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k5\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(((k8\_finseq\_1\ k5\_numbers\ X1\ (k12\_finseq\_1\ k5\_numbers\ X2)\in X0)\wedge(r1\_xxreal\_0\ X3\ X2))\Rightarrow(k8\_finseq\_1\ k5\_numbers\ X1\ (k12\_finseq\_1\ k5\_numbers\ X3)\in X0)))))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2=k4\_partfun1\ X0\ X1)\Leftrightarrow(\forall X3.(X3\in X2)\Leftrightarrow(\exists X4.((v1\_relat\_1\ X4)\wedge(v1\_funct\_1\ X4))\wedge((X3=X4)\wedge((r1\_tarski\ (k9\_xtuple\_0\ X4)\ X0)\wedge(r1\_tarski\ (k10\_xtuple\_0\ X4)\ X1))))) \tag{6}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v5\_relat\_1\ X0\ (k8\_mcart\_1\ k1\_numbers\ k1\_numbers\ k5\_numbers\ k5\_numbers))\wedge((v1\_funct\_1\ X0)\wedge(v3\_trees\_2\ X0))))\Rightarrow(X0\in k4\_partfun1\ (k3\_finseq\_2\ k5\_numbers)\ (k8\_mcart\_1\ k1\_numbers\ k1\_numbers\ k5\_numbers\ k5\_numbers))$$