t27_compos_2 (TMTB6qz3MRByTkKBXtwqiqrLuVxmD5j1hcg)

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Let $v1\_amistd\_4 : \iota \Rightarrow o$ be given. Let $l1\_compos\_1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v1\_afinsq\_1 : \iota \Rightarrow o$ be given. Let $v3\_compos\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_compos\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k62\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k63\_valued\_1 : \iota \Rightarrow \iota$ 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 $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ 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.

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

Assume the following.

$$\forall X0.((v1\_amistd\_4\ X0) \wedge (l1\_compos\_1\ X0)) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge ((v1\_afinsq\_1\ X1) \wedge ((v3\_compos\_1\ X1\ X0) \wedge (v4\_compos\_1\ X1\ X0))))))))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((\neg r1\_xxreal\_0\ (k62\_valued\_1\ X1)\ X2) \Leftrightarrow (X2 \in k9\_xtuple\_0\ (k63\_valued\_1\ X1))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k6\_subset\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0) \tag{4}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0)))))\Rightarrow((v1\_relat\_1\ (k63\_valued\_1\ X0))\wedge(v1\_funct\_1\ (k63\_valued\_1\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1\ X0\ X1 = k7\_funcop\_1\ (k1\_tarski\ X0)\ X1 \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((\neg v1\_xboole\_0\ X0)\wedge(v1\_finset\_1\ X0)))))\Rightarrow(k63\_valued\_1\ X0 = k6\_subset\_1\ X0\ (k16\_funcop\_1\ (k62\_valued\_1\ X0)\ (k1\_funct\_1\ X0\ (k62\_valued\_1\ X0)))) \tag{7}$$

Theorem 1

$$\forall X0.((v1\_amistd\_4\ X0)\wedge(l1\_compos\_1\ X0))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge((v1\_afinsq\_1\ X1)\wedge((v3\_compos\_1\ X1\ X0)\wedge(v4\_compos\_1\ X1\ X0))))))))))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((\neg r1\_xxreal\_0\ (k62\_valued\_1\ X1)\ X2)\Rightarrow(k1\_funct\_1\ (k63\_valued\_1\ X1)\ X2 = k1\_funct\_1\ X1\ X2))))$$