t62_compos_1 (TMHRBGbL4nbTAT9NrJZDtisjjNU2gSW6eAd)

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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 $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k2\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_compos\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v5\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k3\_afinsq\_1 : \iota \Rightarrow \iota$ 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. Let $k4\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k2\_compos\_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v5\_ordinal1\ X0) \wedge (v1\_funct\_1\ X0))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v5\_ordinal1\ X1) \wedge (v1\_funct\_1\ X1))) \Rightarrow (r1\_ordinal1\ (k9\_xtuple\_0\ X0)\ (k9\_xtuple\_0\ (k1\_ordinal4\ X0\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge(v3\_ordinal1\ X1))\Rightarrow((r1\_ordinal1\ X0\ X1)\Leftrightarrow(r1\_tarski\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finset\_1\ X0))))\Rightarrow(k2\_afinsq\_1\ X0 = k9\_xtuple\_0\ X0) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_relat\_1\ X0))\Rightarrow(\neg v1\_xboole\_0\ (k9\_xtuple\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(v5\_ordinal1\ (k3\_afinsq\_1\ X0))\wedge(v1\_finset\_1\ (k3\_afinsq\_1\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ (k3\_afinsq\_1\ X0))\wedge(v1\_funct\_1\ (k3\_afinsq\_1\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_finset\_1\ X0))))\Rightarrow(v7\_ordinal1\ (k9\_xtuple\_0\ X0)) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_compos\_1\ X0)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge(v1\_afinsq\_1\ X1)))))))\Rightarrow((\neg v1\_xboole\_0\ (k10\_compos\_1\ X0\ X1))\wedge((v1\_relat\_1\ (k10\_compos\_1\ X0\ X1))\wedge((v4\_relat\_1\ (k10\_compos\_1\ X0\ X1)\ k5\_numbers)\wedge((v5\_relat\_1\ (k10\_compos\_1\ X0\ X1)\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ (k10\_compos\_1\ X0\ X1))\wedge((v1\_finset\_1\ (k10\_compos\_1\ X0\ X1))\wedge(v1\_afinsq\_1\ (k10\_compos\_1\ X0\ X1))))))))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_compos\_1\ X0)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge(v1\_afinsq\_1\ X1)))))))\Rightarrow((v1\_relat\_1\ (k10\_compos\_1\ X0\ X1))\wedge((v4\_relat\_1\ (k10\_compos\_1\ X0\ X1)\ k5\_numbers)\wedge((v5\_relat\_1\ (k10\_compos\_1\ X0\ X1)\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ (k10\_compos\_1\ X0\ X1))\wedge(v1\_finset\_1\ (k10\_compos\_1\ X0\ X1)))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1\ X0\ X1 = k7\_funcop\_1\ (k1\_tarski\ X0)\ X1 \tag{13}$$

Assume the following.

$$\forall X0.(l1\_compos\_1\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge(v1\_afinsq\_1\ X1))))))\Rightarrow(k10\_compos\_1\ X0\ X1 = k1\_ordinal4\ X1\ (k4\_compos\_1\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.k3\_afinsq\_1\ X0 = k16\_funcop\_1\ k6\_numbers\ X0 \tag{15}$$

Assume the following.

$$\forall X0.(l1\_compos\_1\ X0)\Rightarrow(k4\_compos\_1\ X0 = k3\_afinsq\_1\ (k2\_compos\_1\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_afinsq\_1\ X0)))))\Rightarrow((v1\_relat\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge(v1\_funct\_1\ X0))) \tag{17}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{18}$$

Theorem 1

$$\forall X0.(l1\_compos\_1\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge(v1\_afinsq\_1\ X1)))))))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((X2 \in k2\_afinsq\_1\ X1)\Rightarrow(X2 \in k2\_afinsq\_1\ (k10\_compos\_1\ X0\ X1)))))$$