t44_compos_1 (TMV4PipQkpMnz1uZeYUUToiptWGrzzgLuoK)

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Let $l1\_compos\_1 : \iota \Rightarrow o$ 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 $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_compos\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow ((r1\_tarski\ X0\ X1) \Rightarrow (k1\_funct\_4\ X1\ X0 = X1))) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_compos\_1\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_finset\_1\ X1))))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ k5\_numbers) \wedge ((v5\_relat\_1\ X2\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_finset\_1\ X2))))) \Rightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow (k6\_compos\_1\ X0\ (k1\_funct\_4\ X1\ X2)\ X3 = k1\_funct\_4\ (k6\_compos\_1\ X0\ X1\ X3)\ (k6\_compos\_1\ X0\ X2\ X3)))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (r1\_tarski\ X0\ (k1\_funct\_4\ X1\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1\_tarski\ X0\ X1) \wedge (r1\_tarski\ X1\ X2)) \Rightarrow (r1\_tarski\ X0\ X2) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l1\_compos\_1\ X0)\wedge(((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge(v1\_finset\_1\ X1)))))\wedge(v7\_ordinal1\ X2)))\Rightarrow((v1\_relat\_1\ (k6\_compos\_1\ X0\ X1\ X2))\wedge((v4\_relat\_1\ (k6\_compos\_1\ X0\ X1\ X2)\ k5\_numbers)\wedge((v5\_relat\_1\ (k6\_compos\_1\ X0\ X1\ X2)\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ (k6\_compos\_1\ X0\ X1\ X2))\wedge(v1\_finset\_1\ (k6\_compos\_1\ X0\ X1\ X2))))))) \tag{6}$$

Theorem 1

$$\forall X0.(l1\_compos\_1\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge(v1\_finset\_1\ X1)))))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ k5\_numbers)\wedge((v5\_relat\_1\ X2\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X2)\wedge(v1\_finset\_1\ X2)))))\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow((r1\_tarski\ X1\ X2)\Rightarrow(r1\_tarski\ (k6\_compos\_1\ X0\ X1\ X3)\ (k6\_compos\_1\ X0\ X2\ X3))))))$$