t4_compos_0 (TMLpDbR7ifmorPdJrw637Qo1mpjKkqEQKyN)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_compos\_0 : \iota \Rightarrow o$ be given. Let $v2\_compos\_0 : \iota \Rightarrow o$ be given. Let $v3\_compos\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_compos\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_numbers : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Let $v2\_valued\_0 : \iota \Rightarrow o$ be given. Let $v3\_valued\_0 : \iota \Rightarrow o$ be given. Let $v4\_valued\_0 : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k7\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\forall X0.\exists X1.(v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ X0) \wedge ((v5\_relat\_1\ X1\ k3\_numbers) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_partfun1\ X1\ X0) \wedge ((v1\_valued\_0\ X1) \wedge ((v2\_valued\_0\ X1) \wedge ((v3\_valued\_0\ X1) \wedge (v4\_valued\_0\ X1)))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ X0) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_valued\_0\ X1)))) \wedge (v1\_xcmplx\_0\ X2)) \Rightarrow ((v1\_relat\_1\ (k7\_valued\_1\ X1\ X2)) \wedge ((v4\_relat\_1\ (k7\_valued\_1\ X1\ X2)\ X0) \wedge (v1\_funct\_1\ (k7\_valued\_1\ X1\ X2)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \wedge (v1\_xcmplx\_0\ X1)) \Rightarrow ((v1\_relat\_1\ (k7\_valued\_1\ X0\ X1)) \wedge (v1\_funct\_1\ (k7\_valued\_1\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge((v1\_compos\_0\ X0)\wedge((v2\_compos\_0\ X0)\wedge(v3\_compos\_0\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ X0)\Rightarrow((X3 = k5\_compos\_0\ X0\ X1\ X2)\Leftrightarrow((k2\_compos\_0\ X0\ X3 = k2\_compos\_0\ X0\ X1)\wedge((k2\_xtuple\_0\ X3 = k2\_xtuple\_0\ X1)\wedge(k5\_xtuple\_0\ X3 = k7\_valued\_1\ (k5\_xtuple\_0\ X1)\ X2)))))))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_compos\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow((v4\_compos\_0\ X1\ X0)\Leftrightarrow(v1\_xboole\_0\ (k5\_xtuple\_0\ X1)))) \tag{6}$$

Assume the following.

$$\forall X0.k5\_xtuple\_0\ X0 = k2\_xtuple\_0\ (k1\_xtuple\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v4\_relat\_1\ X1\ X0))\Rightarrow((v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge(v4\_relat\_1\ X1\ X0)))) \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{9}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_compos\_0\ X1)\wedge((v2\_compos\_0\ X1)\wedge(v3\_compos\_0\ X1))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ X1)\Rightarrow((v4\_compos\_0\ X2\ X1)\Rightarrow(k5\_compos\_0\ X1\ X2\ X0 = X2))))$$