t25_compos_2 (TMFhurpdo7truj2VRt1HPpimSFe9LdJzH8w)

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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 $r2\_compos\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_compos\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_amistd\_4\ X0) \wedge (l1\_compos\_1\ X0)) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge ((v1\_afinsq\_1\ X1) \wedge ((v3\_compos\_1\ X1\ X0) \wedge (v4\_compos\_1\ X1\ X0))))))))) \Rightarrow (\forall X2.(r1\_tarski\ X1\ X2) \Rightarrow (r1\_compos\_2\ X1\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_amistd\_4\ X0) \wedge (l1\_compos\_1\ X0)) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge ((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ k5\_numbers) \wedge ((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_finset\_1\ X1) \wedge ((v1\_afinsq\_1\ X1) \wedge ((v3\_compos\_1\ X1\ X0) \wedge (v4\_compos\_1\ X1\ X0))))))))) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ k5\_numbers) \wedge ((v5\_relat\_1\ X2\ (u1\_compos\_1\ X0)) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_finset\_1\ X2) \wedge ((v1\_afinsq\_1\ X2) \wedge ((v3\_compos\_1\ X2\ X0) \wedge (v4\_compos\_1\ X2\ X0))))))))) \Rightarrow (\forall X3.((r2\_compos\_2\ X1\ X2) \wedge (r1\_compos\_2\ X2\ X3)) \Rightarrow (r1\_compos\_2\ X1\ X3)))) \tag{2}$$

Theorem 1

$$\forall X0.((v1\_amistd\_4\ X0)\wedge(l1\_compos\_1\ X0))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v5\_relat\_1\ X1\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1\ X1)\wedge((v1\_afinsq\_1\ X1)\wedge((v3\_compos\_1\ X1\ X0)\wedge(v4\_compos\_1\ X1\ X0)))))))))\Rightarrow(\forall X2.((\neg v1\_xboole\_0\ X2)\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ k5\_numbers)\wedge((v5\_relat\_1\ X2\ (u1\_compos\_1\ X0))\wedge((v1\_funct\_1\ X2)\wedge((v1\_finset\_1\ X2)\wedge((v1\_afinsq\_1\ X2)\wedge((v3\_compos\_1\ X2\ X0)\wedge(v4\_compos\_1\ X2\ X0)))))))))\Rightarrow((r2\_compos\_2\ X1\ X2)\Rightarrow(\forall X3.(r1\_tarski\ X2\ X3)\Rightarrow(r1\_compos\_2\ X1\ X3)))))$$