t46_scmpds_6 (TMN54YTcyTqMZHLCNebubDZk78i6NqDqd1Z)

October 27, 2020

Let $v1\_ami\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_scmpds\_2 : \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ 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 $k6\_numbers : \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_scmpds\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((\neg v1\_xboole\_0\ X0) \wedge (v1\_afinsq\_1\ X0))))) \Rightarrow (k6\_numbers \in k9\_xtuple\_0\ X0) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v1\_relat\_1\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (k9\_xtuple\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (v1\_xboole\_0\ (k9\_xtuple\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))) \wedge ((v1\_int\_1\ X1) \wedge ((\neg v1\_xboole\_0\ X2) \wedge ((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ k5\_numbers) \wedge ((v5\_relat\_1\ X2\ (u1\_compos\_1\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_finset\_1\ X2) \wedge (v1\_afinsq\_1\ X2)))))))) \Rightarrow ((\neg v1\_xboole\_0\ (k5\_scmpds\_6\ X0\ X1\ X2)) \wedge ((v1\_relat\_1\ (k5\_scmpds\_6\ X0\ X1\ X2)) \wedge ((v4\_relat\_1\ (k5\_scmpds\_6\ X0\ X1\ X2)\ k5\_numbers) \wedge ((v5\_relat\_1\ (k5\_scmpds\_6\ X0\ X1\ X2)\ (u1\_compos\_1\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ (k5\_scmpds\_6\ X0\ X1\ X2)) \wedge ((v1\_finset\_1\ (k5\_scmpds\_6\ X0\ X1\ X2)) \wedge (v1\_afinsq\_1\ (k5\_scmpds\_6\ X0\ X1\ X2))))))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \tag{5}$$

Theorem 1

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmpds\_2))) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.((\neg v1\_xboole\_0\ X2) \wedge ((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ k5\_numbers) \wedge ((v5\_relat\_1\ X2\ (u1\_compos\_1\ k1\_scmpds\_2)) \wedge ((v1\_funct\_1\ X2) \wedge ((v1\_finset\_1\ X2) \wedge (v1\_afinsq\_1\ X2)))))))) \Rightarrow (k6\_numbers \in k9\_xtuple\_0\ (k5\_scmpds\_6\ X0\ X1\ X2))))$$