t26_rsspace4 (TM-cJFmKS8MkLpPZBQzAhTjk7Fjm6k9d3vv4)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v5\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v6\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v7\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v8\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_normsp\_0 : \iota \Rightarrow o$ be given. Let $v4\_normsp\_0 : \iota \Rightarrow o$ be given. Let $v2\_normsp\_1 : \iota \Rightarrow o$ be given. Let $v3\_lopban\_1 : \iota \Rightarrow o$ be given. Let $l1\_normsp\_1 : \iota \Rightarrow o$ be given. Let $k9\_rsspace4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_rsspace3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_normsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v13\_algstr\_0\ X1) \wedge ((v2\_rlvect\_1\ X1) \wedge ((v3\_rlvect\_1\ X1) \wedge ((v4\_rlvect\_1\ X1) \wedge ((v5\_rlvect\_1\ X1) \wedge ((v6\_rlvect\_1\ X1) \wedge ((v7\_rlvect\_1\ X1) \wedge ((v8\_rlvect\_1\ X1) \wedge ((v3\_normsp\_0\ X1) \wedge ((v4\_normsp\_0\ X1) \wedge ((v2\_normsp\_1\ X1) \wedge (l1\_normsp\_1\ X1)))))))))))) \Rightarrow ((v3\_lopban\_1\ X1) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ k5\_numbers\ (u1\_struct\_0\ (k9\_rsspace4\ X0\ X1))) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ (k9\_rsspace4\ X0\ X1)))))) \Rightarrow ((v1\_rsspace3\ X2\ (k9\_rsspace4\ X0\ X1)) \Rightarrow (v3\_normsp\_1\ X2\ (k9\_rsspace4\ X0\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v5\_rlvect\_1\ X1)\wedge((v6\_rlvect\_1\ X1)\wedge((v7\_rlvect\_1\ X1)\wedge((v8\_rlvect\_1\ X1)\wedge((v3\_normsp\_0\ X1)\wedge((v4\_normsp\_0\ X1)\wedge((v2\_normsp\_1\ X1)\wedge(l1\_normsp\_1\ X1))))))))))))\Rightarrow((\neg v2\_struct\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v13\_algstr\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v2\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v3\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v4\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v5\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v6\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v7\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v8\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v3\_normsp\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v4\_normsp\_0\ (k9\_rsspace4\ X0\ X1))\wedge(v2\_normsp\_1\ (k9\_rsspace4\ X0\ X1))))))))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v5\_rlvect\_1\ X1)\wedge((v6\_rlvect\_1\ X1)\wedge((v7\_rlvect\_1\ X1)\wedge((v8\_rlvect\_1\ X1)\wedge((v3\_normsp\_0\ X1)\wedge((v4\_normsp\_0\ X1)\wedge((v2\_normsp\_1\ X1)\wedge(l1\_normsp\_1\ X1))))))))))))\Rightarrow((\neg v2\_struct\_0\ (k9\_rsspace4\ X0\ X1))\wedge(l1\_normsp\_1\ (k9\_rsspace4\ X0\ X1))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge((v3\_normsp\_0\ X0)\wedge((v4\_normsp\_0\ X0)\wedge((v2\_normsp\_1\ X0)\wedge(l1\_normsp\_1\ X0))))))))))))\Rightarrow((v3\_lopban\_1\ X0)\Leftrightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ X0))))))\Rightarrow((v1\_rsspace3\ X1\ X0)\Rightarrow(v3\_normsp\_1\ X1\ X0)))) \tag{4}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v5\_rlvect\_1\ X1)\wedge((v6\_rlvect\_1\ X1)\wedge((v7\_rlvect\_1\ X1)\wedge((v8\_rlvect\_1\ X1)\wedge((v3\_normsp\_0\ X1)\wedge((v4\_normsp\_0\ X1)\wedge((v2\_normsp\_1\ X1)\wedge((v3\_lopban\_1\ X1)\wedge(l1\_normsp\_1\ X1))))))))))))\Rightarrow((\neg v2\_struct\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v13\_algstr\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v2\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v3\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v4\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v5\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v6\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v7\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v8\_rlvect\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v3\_normsp\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v4\_normsp\_0\ (k9\_rsspace4\ X0\ X1))\wedge((v2\_normsp\_1\ (k9\_rsspace4\ X0\ X1))\wedge((v3\_lopban\_1\ (k9\_rsspace4\ X0\ X1))\wedge(l1\_normsp\_1\ (k9\_rsspace4\ X0\ X1)))))))))))))))$$