l44_pdiff_9 (TMKDavBsqn-wFQAHTbwm5kCaMTpxpMYHUq3X)

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Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ 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 $k1\_euclid : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_real\_ns1 : \iota \Rightarrow \iota$ be given. Let $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_nfcont\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_normsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_normsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_comseq\_2 : \iota \Rightarrow o$ be given. Let $k8\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_seq\_2 : \iota \Rightarrow \iota$ be given. Let $r2\_nfcont\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ 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 $v1\_normsp\_1 : \iota \Rightarrow o$ be given. Let $v2\_normsp\_1 : \iota \Rightarrow o$ be given. Let $l1\_normsp\_1 : \iota \Rightarrow o$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_euclid : \iota \Rightarrow \iota$ be given. Let $r1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_real\_ns1 : \iota \Rightarrow \iota$ be given. Let $u1\_rlvect\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_real\_ns1 : \iota \Rightarrow \iota$ be given. Let $u1\_normsp\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_real\_ns1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k1\_euclid\ X0)\ k1\_numbers)))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ k1\_numbers)))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_euclid\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))) \Rightarrow (((X1 = X2) \wedge (X3 = X4)) \Rightarrow ((r2\_nfcont\_4\ X0\ X1\ X3) \Leftrightarrow (r2\_nfcont\_1\ (k4\_real\_ns1\ X0)\ X2\ X4)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{4}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((\neg v2\_struct\_0\ (k4\_real\_ns1\ X0))\wedge ((v13\_algstr\_0\ (k4\_real\_ns1\ X0))\wedge((v2\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v3\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v4\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v5\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v6\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v7\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v8\_rlvect\_1\ (k4\_real\_ns1\ X0))\wedge((v3\_normsp\_0\ (k4\_real\_ns1\ X0))\wedge((v4\_normsp\_0\ (k4\_real\_ns1\ X0))\wedge((v1\_normsp\_1\ (k4\_real\_ns1\ X0))\wedge(v2\_normsp\_1\ (k4\_real\_ns1\ X0)))))))))))))) \tag{5}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{6}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((\neg v2\_struct\_0\ (k4\_real\_ns1\ X0))\wedge ((v1\_normsp\_1\ (k4\_real\_ns1\ X0))\wedge(l1\_normsp\_1\ (k4\_real\_ns1\ X0)))) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v5\_rlvect\_1\ X0)\wedge((v6\_rlvect\_1\ X0)\wedge((v7\_rlvect\_1\ X0)\wedge((v8\_rlvect\_1\ X0)\wedge((v3\_normsp\_0\ X0)\wedge((v4\_normsp\_0\ X0)\wedge((v2\_normsp\_1\ X0)\wedge(l1\_normsp\_1\ X0))))))))))))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k1\_numbers))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r2\_nfcont\_1\ X0\ X1\ X2)\Leftrightarrow((X2\in k1\_relset\_1\ (u1\_struct\_0\ X0)\ X1)\wedge(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ k5\_numbers\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ X0))))))\Rightarrow(((r1\_tarski\ (k2\_relset\_1\ (u1\_struct\_0\ X0)\ X3)\ (k1\_relset\_1\ (u1\_struct\_0\ X0)\ X1))\wedge((v3\_normsp\_1\ X3\ X0)\wedge(k6\_normsp\_1\ X0\ X3=X2)))\Rightarrow((v2\_comseq\_2\ (k8\_funct\_2\ k5\_numbers\ k1\_numbers\ (u1\_struct\_0\ X0)\ X3\ X1))\wedge(k7\_partfun1\ k1\_numbers\ X1\ X2=k2\_seq\_2\ (k8\_funct\_2\ k5\_numbers\ k1\_numbers\ (u1\_struct\_0\ X0)\ X3\ X1)))))))))) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v1\_normsp\_1\ X1)\wedge(l1\_normsp\_1\ X1)))\Rightarrow((X1=k4\_real\_ns1\ X0)\Leftrightarrow((u1\_struct\_0\ X1=k1\_euclid\ X0)\wedge((k4\_struct\_0\ X1=k5\_euclid\ X0)\wedge((r1\_funct\_2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ X1)\ (k2\_zfmisc\_1\ (k1\_euclid\ X0)\ (k1\_euclid\ X0))\ (k1\_euclid\ X0)\ (u1\_algstr\_0\ X1)\ (k1\_real\_ns1\ X0))\wedge((r1\_funct\_2\ (k2\_zfmisc\_1\ k1\_numbers\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ X1)\ (k2\_zfmisc\_1\ k1\_numbers\ (k1\_euclid\ X0))\ (k1\_euclid\ X0)\ (u1\_rlvect\_1\ X1)\ (k2\_real\_ns1\ X0))\wedge(r1\_funct\_2\ (u1\_struct\_0\ X1)\ k1\_numbers\ (k1\_euclid\ X0)\ k1\_numbers\ (u1\_normsp\_0\ X1)\ (k3\_real\_ns1\ X0)))))))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{11}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k1\_euclid\ X0)\ k1\_numbers))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ k1\_numbers))))\Rightarrow(\forall X3.(m2\_finseq\_2\ X3\ k1\_numbers\ (k1\_euclid\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k4\_real\_ns1\ X0)))\Rightarrow(((X1 = X2)\wedge(X3 = X4))\Rightarrow((r2\_nfcont\_4\ X0\ X1\ X3)\Leftrightarrow((X4 \in k1\_relset\_1\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ X2)\wedge(\forall X5.((v1\_funct\_1\ X5)\wedge((v1\_funct\_2\ X5\ k5\_numbers\ (u1\_struct\_0\ (k4\_real\_ns1\ X0)))\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (u1\_struct\_0\ (k4\_real\_ns1\ X0)))))))\Rightarrow(((r1\_tarski\ (k2\_relset\_1\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ X5)\ (k1\_relset\_1\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ X2))\wedge((v3\_normsp\_1\ X5\ (k4\_real\_ns1\ X0))\wedge(k6\_normsp\_1\ (k4\_real\_ns1\ X0)\ X5 = X4)))\Rightarrow((v2\_comseq\_2\ (k8\_funct\_2\ k5\_numbers\ k1\_numbers\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ X5\ X2))\wedge(k7\_partfun1\ k1\_numbers\ X2\ X4 = k2\_seq\_2\ (k8\_funct\_2\ k5\_numbers\ k1\_numbers\ (u1\_struct\_0\ (k4\_real\_ns1\ X0))\ X5\ X2))))))))))))$$