t2_goboard6 (TMbF1kjMoKKL1py5VtxZLnwCiQEoc3XBU2v)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k14\_euclid : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $m1\_connsp\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $v6\_metric\_1 : \iota \Rightarrow o$ be given. Let $l1\_metric\_1 : \iota \Rightarrow o$ be given. Let $v9\_metric\_1 : \iota \Rightarrow o$ be given. Let $k3\_pcomps\_1 : \iota \Rightarrow \iota$ be given. Let $v2\_monoid\_0 : \iota \Rightarrow o$ be given. Let $v5\_rltopsp1 : \iota \Rightarrow o$ 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 $v1\_metric\_1 : \iota \Rightarrow o$ be given. Let $v7\_metric\_1 : \iota \Rightarrow o$ be given. Let $v8\_metric\_1 : \iota \Rightarrow o$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $g1\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_rlvect\_1 : \iota \Rightarrow \iota$ be given. Let $k10\_funcsdom : \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $g1\_metric\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_euclid : \iota \Rightarrow \iota$ be given. Let $k13\_euclid : \iota \Rightarrow \iota$ be given. Let $g1\_rltopsp1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (u1\_struct\_0\ (k15\_euclid\ X0) = u1\_struct\_0\ (k14\_euclid\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (((v3\_pre\_topc\ X1\ X0) \wedge (X2 \in X1)) \Rightarrow (m1\_connsp\_2\ X1\ X0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1.((v3\_pre\_topc\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Leftrightarrow((v3\_pre\_topc\ X1\ (g1\_pre\_topc\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0)))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (g1\_pre\_topc\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0)))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v6\_metric\_1\ X0)\wedge(l1\_metric\_1\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow((\neg r1\_xxreal\_0\ X2\ k6\_numbers)\Rightarrow(X1\in k9\_metric\_1\ X0\ X1\ X2)))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.((v9\_metric\_1\ X1)\wedge(l1\_metric\_1\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k3\_pcomps\_1\ X1))))\Rightarrow((X3 = k9\_metric\_1\ X1\ X2\ X0)\Rightarrow(v3\_pre\_topc\ X3\ (k3\_pcomps\_1\ X1)))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ X0)))\Rightarrow(\forall X2.\forall X3.(g1\_pre\_topc\ X0\ X1 = g1\_pre\_topc\ X2\ X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v2\_monoid\_0\ (k15\_euclid\ X0))\wedge(v5\_rltopsp1\ (k15\_euclid\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v2\_pre\_topc\ (k15\_euclid\ X0))\wedge((v13\_algstr\_0\ (k15\_euclid\ X0))\wedge((v2\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v3\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v4\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v5\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v6\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v7\_rlvect\_1\ (k15\_euclid\ X0))\wedge((v8\_rlvect\_1\ (k15\_euclid\ X0))\wedge(v5\_rltopsp1\ (k15\_euclid\ X0)))))))))) \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((\neg v2\_struct\_0\ (k15\_euclid\ X0))\wedge(v5\_rltopsp1\ (k15\_euclid\ X0))) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((\neg v2\_struct\_0\ (k14\_euclid\ X0))\wedge((v1\_metric\_1\ (k14\_euclid\ X0))\wedge((v6\_metric\_1\ (k14\_euclid\ X0))\wedge((v7\_metric\_1\ (k14\_euclid\ X0))\wedge((v8\_metric\_1\ (k14\_euclid\ X0))\wedge(v9\_metric\_1\ (k14\_euclid\ X0))))))) \tag{10}$$

Assume the following.

$$\forall X0.(l1\_metric\_1\ X0)\Rightarrow((v1\_pre\_topc\ (k3\_pcomps\_1\ X0))\wedge (v2\_pre\_topc\ (k3\_pcomps\_1\ X0))) \tag{11}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(m1\_subset\_1\ (u1\_pre\_topc\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{12}$$

Assume the following.

$$\forall X0.(l1\_rltopsp1\ X0)\Rightarrow((l1\_rlvect\_1\ X0)\wedge(l1\_pre\_topc\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l1\_metric\_1\ X0)\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(v1\_xreal\_0\ X2)))\Rightarrow(m1\_subset\_1\ (k9\_metric\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{14}$$

Assume the following.

$$\forall X0.(l1\_metric\_1\ X0)\Rightarrow(l1\_pre\_topc\ (k3\_pcomps\_1\ X0)) \tag{15}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v5\_rltopsp1\ (k15\_euclid\ X0))\wedge (l1\_rltopsp1\ (k15\_euclid\ X0))) \tag{16}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_metric\_1\ (k14\_euclid\ X0))\wedge ((v6\_metric\_1\ (k14\_euclid\ X0))\wedge((v7\_metric\_1\ (k14\_euclid\ X0))\wedge ((v8\_metric\_1\ (k14\_euclid\ X0))\wedge((v9\_metric\_1\ (k14\_euclid\ X0))\wedge (l1\_metric\_1\ (k14\_euclid\ X0))))))) \tag{17}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((v5\_rltopsp1\ X1)\wedge(l1\_rltopsp1\ X1))\Rightarrow((X1 = k15\_euclid\ X0)\Leftrightarrow((g1\_pre\_topc\ (u1\_struct\_0\ X1)\ (u1\_pre\_topc\ X1) = k3\_pcomps\_1\ (k14\_euclid\ X0))\wedge(g1\_rlvect\_1\ (u1\_struct\_0\ X1)\ (u2\_struct\_0\ X1)\ (u1\_algstr\_0\ X1)\ (u1\_rlvect\_1\ X1) = k10\_funcsdom\ (k2\_finseq\_1\ X0))))) \tag{18}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k14\_euclid\ X0 = g1\_metric\_1\ (k1\_euclid\ X0)\ (k13\_euclid\ X0)) \tag{19}$$

Assume the following.

$$\forall X0.(l1\_rltopsp1\ X0)\Rightarrow((v5\_rltopsp1\ X0)\Rightarrow(X0 = g1\_rltopsp1\ (u1\_struct\_0\ X0)\ (u2\_struct\_0\ X0)\ (u1\_algstr\_0\ X0)\ (u1\_rlvect\_1\ X0)\ (u1\_pre\_topc\ X0))) \tag{20}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow((v1\_pre\_topc\ X0)\Rightarrow(X0 = g1\_pre\_topc\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0))) \tag{21}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k14\_euclid\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k15\_euclid\ X0)))\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow((X1 = X2)\Rightarrow((r1\_xxreal\_0\ X3\ k6\_numbers)\vee(m1\_connsp\_2\ (k9\_metric\_1\ (k14\_euclid\ X0)\ X1\ X3)\ (k15\_euclid\ X0)\ X2))))))$$