t31_euclid_3 (TMaXursudLvm5XAToPDZCKHyFYYMv52tEms)

October 27, 2020

Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k15\_euclid : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $k3\_euclid\_3 : \iota \Rightarrow \iota$ be given. Let $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_euclid\_3 : \iota \Rightarrow \iota$ be given. Let $k2\_euclid\_3 : \iota \Rightarrow \iota$ be given. Let $k5\_complex1 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_comptrig : \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k10\_complex1 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. 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 $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k2\_numbers : \iota$ be given. Let $v6\_membered : \iota \Rightarrow o$ be given. Let $l1\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l1\_rltopsp1 : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v5\_rltopsp1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (k1\_euclid\_3\ (k2\_euclid\_3\ X0) = X0) \tag{1}$$

Assume the following.

$$k1\_euclid\_3\ k5\_complex1 = k4\_struct\_0\ (k15\_euclid\ np\_\_2) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow ((X0 \neq k6\_numbers) \Rightarrow ((\neg r1\_xxreal\_0\ k32\_sin\_cos\ (k1\_comptrig\ X0)) \Leftrightarrow (r1\_xxreal\_0\ k32\_sin\_cos\ (k1\_comptrig\ (k4\_xcmplx\_0\ X0)))))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (k2\_euclid\_3\ (k4\_algstr\_0\ (k15\_euclid\ np\_\_2)\ X0) = k10\_complex1\ (k2\_euclid\_3\ X0)) \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{5}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{6}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$k5\_complex1 = k1\_xboole\_0 \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(k10\_complex1\ X0 = k4\_xcmplx\_0\ X0) \tag{9}$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \tag{10}$$

Assume the following.

$$\forall X0.(l1\_rlvect\_1\ X0)\Rightarrow(l2\_algstr\_0\ X0) \tag{11}$$

Assume the following.

$$\forall X0.(l1\_rltopsp1\ X0)\Rightarrow((l1\_rlvect\_1\ X0)\wedge(l1\_pre\_topc\ X0)) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((l2\_algstr\_0\ X0)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)))\Rightarrow(m1\_subset\_1\ (k4\_algstr\_0\ X0\ X1)\ (u1\_struct\_0\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(m1\_subset\_1\ (k2\_euclid\_3\ X0)\ k2\_numbers) \tag{14}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v5\_rltopsp1\ (k15\_euclid\ X0))\wedge(l1\_rltopsp1\ (k15\_euclid\ X0))) \tag{15}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(k3\_euclid\_3\ X0 = k1\_comptrig\ (k2\_euclid\_3\ X0)) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v6\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (v7\_ordinal1\ X1)) \tag{18}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow ((X0\neq k4\_struct\_0\ (k15\_euclid\ np\_\_2))\Rightarrow((\neg r1\_xxreal\_0\ k32\_sin\_cos (k3\_euclid\_3\ X0))\Leftrightarrow(r1\_xxreal\_0\ k32\_sin\_cos\ (k3\_euclid\_3\ (k4\_algstr\_0 (k15\_euclid\ np\_\_2)\ X0)))))$$