t33_euclid_3 (TMUHFcUYgyGqQrrUyDSBFv-CyfQwyKG4G2G7)

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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 $k3\_euclid\_3 : \iota \Rightarrow \iota$ be given. Let $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k32\_sin\_cos : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18\_euclid : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k1\_comptrig : \iota \Rightarrow \iota$ be given. Let $k4\_complex1 : \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k3\_complex1 : \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_complex1 : \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $k2\_numbers : \iota$ be given. Let $k2\_euclid\_3 : \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k17\_euclid : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow ((k1\_comptrig\ X0 \in k2\_rcomp\_1\ k6\_numbers\ k32\_sin\_cos) \Leftrightarrow (\neg r1\_xxreal\_0\ (k4\_complex1\ X0)\ k6\_numbers)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((k3\_complex1\ (k2\_xcmplx\_0\ X0\ (k3\_xcmplx\_0\ X1\ k7\_complex1)) = X0) \wedge (k4\_complex1\ (k2\_xcmplx\_0\ X0\ (k3\_xcmplx\_0\ X1\ k7\_complex1)) = X1))) \tag{2}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (m1\_subset\_1\ (k18\_euclid\ X0)\ k1\_numbers) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow (m1\_subset\_1\ (k17\_euclid\ X0)\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow (k3\_euclid\_3\ X0 = k1\_comptrig\ (k2\_euclid\_3\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow (k2\_euclid\_3\ X0 = k2\_xcmplx\_0\ (k17\_euclid\ X0)\ (k3\_xcmplx\_0\ (k18\_euclid\ X0)\ k7\_complex1)) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow (v1\_xreal\_0\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow (v1\_xcmplx\_0\ X1)) \tag{10}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow ((k3\_euclid\_3\ X0 \in k2\_rcomp\_1\ k6\_numbers\ k32\_sin\_cos)\Leftrightarrow (\neg r1\_xxreal\_0\ (k18\_euclid\ X0)\ k6\_numbers))$$