t5_topreal3 (TM-bcY5kwPcNRyYoZz1NmxyZaRTwGgt4Dc3M)

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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 $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_euclid : \iota \Rightarrow \iota$ be given. Let $k18\_euclid : \iota \Rightarrow \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (k5\_algstr\_0\ (k15\_euclid\ np\_\_2)\ X0\ X1 = k19\_euclid\ (k9\_real\_1\ (k17\_euclid\ X0)\ (k17\_euclid\ X1))\ (k9\_real\_1\ (k18\_euclid\ X0)\ (k18\_euclid\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2))) \Rightarrow (k3\_rlvect\_1\ (k15\_euclid\ np\_\_2)\ X0\ X1 = k19\_euclid\ (k7\_real\_1\ (k17\_euclid\ X0)\ (k17\_euclid\ X1))\ (k7\_real\_1\ (k18\_euclid\ X0)\ (k18\_euclid\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((k17\_euclid\ (k19\_euclid\ X0\ X1) = X0) \wedge (k18\_euclid\ (k19\_euclid\ X0\ X1) = X1))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k9\_real\_1\ X0\ X1 = k6\_xcmplx\_0\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_numbers) \wedge (v1\_xreal\_0\ X1)) \Rightarrow (k7\_real\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k19\_euclid\ X0\ X1 = k10\_finseq\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k6\_xcmplx\_0\ X0\ X1)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(m1\_subset\_1\ (k18\_euclid\ X0)\ k1\_numbers) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(m1\_subset\_1\ (k17\_euclid\ X0)\ k1\_numbers) \tag{10}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ np\_\_2)))\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(\forall X4.(v1\_xreal\_0\ X4)\Rightarrow(\forall X5.(v1\_xreal\_0\ X5)\Rightarrow(((X0 = k10\_finseq\_1\ X2\ X3)\wedge(X1 = k10\_finseq\_1\ X4\ X5))\Rightarrow((k3\_rlvect\_1\ (k15\_euclid\ np\_\_2)\ X0\ X1 = k10\_finseq\_1\ (k2\_xcmplx\_0\ X2\ X4)\ (k2\_xcmplx\_0\ X3\ X5))\wedge(k5\_algstr\_0\ (k15\_euclid\ np\_\_2)\ X0\ X1 = k10\_finseq\_1\ (k6\_xcmplx\_0\ X2\ X4)\ (k6\_xcmplx\_0\ X3\ X5)))))))))$$