

## t12\_euclid\_3

(TMK4JZyY3ZYqNDzS1FdYZZ82DkKLA29GHBw)

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  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k4\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $k7\_complex1 : \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (k4\_algstr\_0 (k15\_euclid np\_2) X0 = k19\_euclid (k1\_real\_1 (k17\_euclid \\ & X0)) (k1\_real\_1 (k18\_euclid X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((k17\_euclid \\ & (k19\_euclid X0 X1) = X0) \wedge (k18\_euclid (k19\_euclid X0 X1) = X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (m1\_subset\_1 (k1\_real\_1 \\ & X0) k1\_numbers) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (m1\_subset\_1 (k18\_euclid X0) k1\_numbers) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (m1\_subset\_1 (k17\_euclid X0) k1\_numbers) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \tag{6}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow \\ & (k2\_xcmplx\_0 (k17\_euclid (k4\_algstr\_0 (k15\_euclid np\_2) X0)) \\ & (k3\_xcmplx\_0 (k18\_euclid (k4\_algstr\_0 (k15\_euclid np\_2) X0)) \\ k7\_complex1) = k2\_xcmplx\_0 (k1\_real\_1 (k17\_euclid X0)) (k3\_xcmplx\_0 \\ & (k1\_real\_1 (k18\_euclid X0)) k7\_complex1)) \end{aligned}$$