

t53\_euclid  
(TMZ13tjibZSUxVaFssxXUHFPQ876f3NpSds)

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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  $k19\_euclid : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_euclid : \iota \Rightarrow \iota$  be given. Let  $k18\_euclid : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((k17\_euclid (k19\_euclid X0 X1) = X0) \wedge (k18\_euclid (k19\_euclid X0 X1) = X1))) \quad (1)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (\exists X1.(m1\_subset\_1 X1 k1\_numbers) \wedge (\exists X2.(m1\_subset\_1 X2 k1\_numbers) \wedge (X0 = k10\_finseq\_1 X1 X2))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k19\_euclid X0 X1 = k10\_finseq\_1 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (4)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k15\_euclid np\_2))) \Rightarrow (X0 = k19\_euclid (k17\_euclid X0) (k18\_euclid X0))$$