

# t9\_topreal9 (TMKCEeesbfvc- FUNA93Zb7FKTJyvRUBvCBkm)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k15\_euclid : \iota \Rightarrow \iota$  be given. Let  $k3\_topreal9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k12\_euclid : \iota \Rightarrow \iota$  be given. Let  $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & \quad (k15\_euclid X0))) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow (k3\_topreal9 \\ X0 X1 X2 = ReplSep (toset (\lambda X3 : \iota.m1\_subset\_1 X3 (u1\_struct\_0 \\ & \quad (k15\_euclid X0)))) (\lambda X3 : \iota.k12\_euclid (k5\_algstr\_0 (k15\_euclid \\ & \quad X0) X3 X1) = X2) (\lambda X3 : \iota.X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \tag{3}$$

## Theorem 1

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(v1\_xreal\_0 \\ X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow \\ & \quad (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow ( \\ X2 \in k3\_topreal9 X0 X3 X1) \Leftrightarrow (k12\_euclid (k5\_algstr\_0 (k15\_euclid \\ & \quad X0) X2 X3) = X1)))) \end{aligned}$$