

## t9\_topreal7

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Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_euclid : \iota \Rightarrow \iota$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k12\_rvsum\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Assume the following.

$$\forall X0.(m2\_finseq\_1 X0 k1\_numbers) \Rightarrow ((k3\_finseq\_1 X0 = k3\_finseq\_1 (k12\_rvsum\_1 X0)) \wedge (k4\_finseq\_1 X0 = k4\_finseq\_1 (k12\_rvsum\_1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 X0) \wedge (v3\_valued\_0 X0)))) \Rightarrow (k12\_rvsum\_1 (k3\_euclid X0) = k12\_rvsum\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge ((v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \quad (5)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 X0) \wedge (v3\_valued\_0 X0)))) \Rightarrow (m2\_finseq\_1 (k3\_euclid X0) k1\_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1 X0 k1\_numbers) \Rightarrow (v3\_valued\_0 X0) \quad (7)$$

**Theorem 1**

$$\forall X0.(m2\_finseq\_1 X0 k1\_numbers) \Rightarrow ((k3\_finseq\_1 X0 = k3\_finseq\_1 (k3\_euclid X0)) \wedge (k4\_finseq\_1 X0 = k4\_finseq\_1 (k3\_euclid X0)))$$