

t40\_euclid\_2  
(TMNjR38g5pk3ZUb5JbjPEjqnmzGR4eezFhq)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. 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  $k23\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k12\_euclid : \iota \Rightarrow \iota$  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  $k5\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_euclid : \iota \Rightarrow \iota$  be given. Let  $v4\_funct\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 X0) \wedge (v3\_valued\_0 X0)))) \Rightarrow ((k23\_rvsum\_1 X0 X0 = k6\_numbers) \Leftrightarrow (k12\_euclid X0 = k6\_numbers)) \quad (1)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finseq\_1 X0) \wedge (v3\_valued\_0 X0)))) \Rightarrow (k5\_square\_1 (k12\_euclid X0) = k23\_rvsum\_1 X0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (u1\_struct\_0 (k15\_euclid X0) = k1\_euclid X0) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v4\_funct\_1 (u1\_struct\_0 (k15\_euclid X0))) \quad (4)$$

Assume the following.

$$\forall X0.(v4\_funct\_1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1))) \quad (5)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k15\_euclid X0))) \Rightarrow (v3\_valued\_0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow (v1\_finseq\_1\ X1)) \quad (7)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k15\_euclid\ X0))) \Rightarrow ((k23\_rvsum\_1\ X1\ X1 = k6\_numbers) \Leftrightarrow (k12\_euclid\ X1 = k6\_numbers)))$$